Users Manual
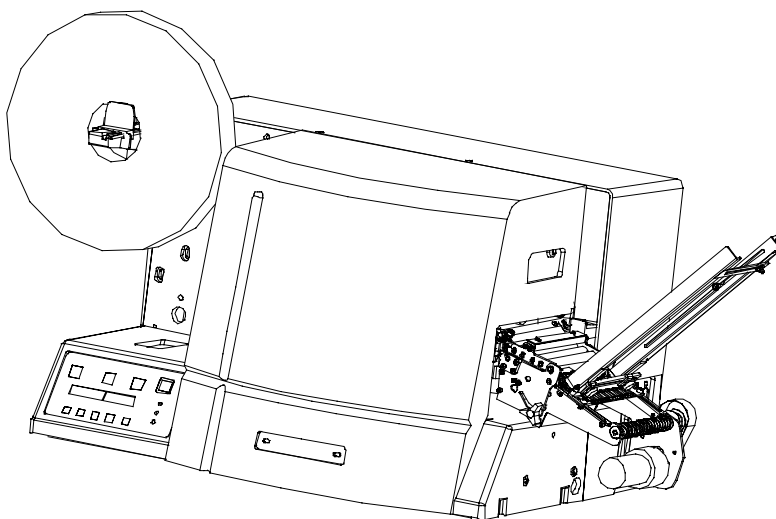
PAXAR

Model 545™

PAXAR Systems Group

Manual Edition 5.1

15 February 2002

Manual Part Number 341398

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Scope

Introduction

This user's manual was arranged for the person who is going to operate the printer. The information is arranged in the order that is needed to install and then operate the printer. It starts with general information, then to unpacking the carton, setup, installing the ink and fabric, printer operation, control panel operation, and finally care and maintenance of the printer.

We at PAXAR hope that you will come to appreciate the efforts and quality, which have gone into producing your PAXAR 545 Printer and wish to remind you that you are our number one priority. We welcome any constructive comments or criticisms so that we may continue to offer you the best printer in the industry for years to come.

Safety Issues / Warnings

Cautions

NEVER INSERT YOUR HAND IN THE INK CARTRIDGE SLOTS AS THE PRINT MODULE NEEDLES ARE UNPROTECTED WHILE THE PRINT MODULES ARE IN THE PRINTER.

This printer has some pinch points. All of these areas have been well guarded and it is recommended that the safety features of this printer are never altered or defeated.

Warranty Information

Limited Warranty

PAXAR Systems Group, Division of PAXAR Corporation, extends the following warranties to the original purchaser of a PAXAR 545 which has been installed and operated using recommended procedures and operating conditions.

Parts

Parts found defective in material or workmanship will be replaced at no charge for a period of six months following the printer's shipment date. Parts damaged by negligence, abuse, or normal wear are not covered. PAXAR 545 parts classed as normal wear items include print heads, feed and turn rollers, stacker belts, and knife blades.

Service

Service to replace defective parts as defined above, shall be provided at no charge for a period of six months following the shipment date.

When ordering machines and supplies in the U.S.A., reference all correspondence to the address below.

> PAXAR Corporation
> One Wilcox Street
> Sayre, Pa. 18840
> Call: 1-800-96PAXAR or (570) 888-6641
> Fax: (570) 888-5230

For spare parts, requests for service or technical support

> Paxar Service Group
> 170 Monarch Lane
> Miamisburg, OH 45342
> Call: (800) 543-6650
> Fax: (937) 865-2092 for Warranty Parts
> Fax: (937) 865-2707 or (937) 865-6605 for Customer Parts Orders

For parts and service in other countries please contact your local PAXAR supplier.

PAXAR Apparel Identification Systems Group reserves the right to incorporate any modifications or improvements in the machine system and machine specifications which it considers necessary and does not assume any obligation to make said changes in equipment previously sold.

Location / Power Requirements

Location of Printer

The printer weighs approximately 80 Lbs. (~37Kg) and requires a table of sufficient quality and strength to handle this load while the printer is operating. PAXAR recommends an industrial type worktable having the approximate dimensions of 96" wide to 30" deep to 32" high.
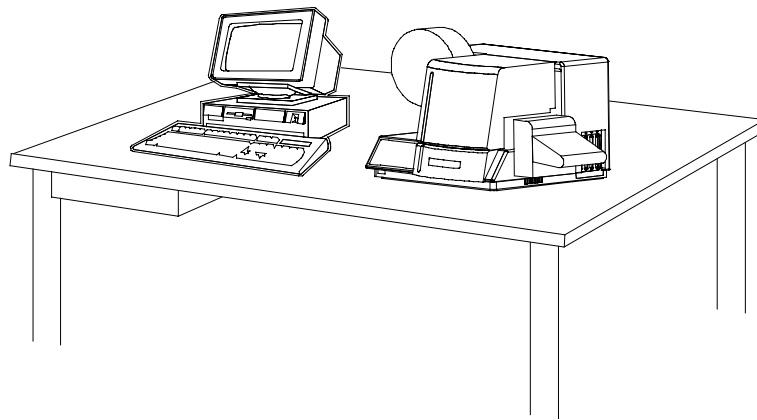
Recommended Workstation Layout.

The location of the PAXAR 545 printer should be based on human factors. The printer should be located in an area that maintains optimum flow of your product while providing for the operator's comfort. PAXAR has taken significant steps to ensure that the operator controls and operations are easily accessible. This goal can only be met, however, if the printer is also located with human factors in mind. These include the height of the printer, the space around the printer, and the accessibility to the printer.

The PAXAR 545 printer is a high-resolution ink jet printer. While PAXAR has designed the printer to be reasonably quiet, it is recommended to locate the printer in an area where printing and cutting repetitious noise is acceptable.

The unit should always be operated with the cover closed to minimize the amount of dust and dirt in the printer.

AC Power Line

PAXAR requires that the electric service be 10 Amps @ 115VAC or 10 Amps @ 230VAC. This will allow the computer and any additional support or service equipment to be plugged into the same service.

Any electrical service which is supplying a PAXAR printer or peripheral equipment connected to a PAXAR printer should follow standard electrical code practices including proper grounding and neutral requirements.

The PAXAR printer was designed to operate in an industrial setting for extended periods of time; however, the printer is controlled by a microprocessor which is very sensitive to brownouts or power spikes. For this reason as well as the minimum recommended current supply, PAXAR recommends that a separate "clean" service be installed or reserved for the exclusive use of the PAXAR printer and it's peripherals.

Unpacking / Inventory

Unpacking

The PAXAR printer is shipped in 2 large cardboard boxes, of which one may be difficult to move by hand.

DO NOT REMOVE THE PRINTER FROM THE BOX OR UNPACK IN THE SHIPPING / RECEIVING DEPARTMENT.

NOTE: Unpacking in the shipping / receiving department is not recommended for the following reasons. *First:* The cardboard carton in which your PAXAR printer was shipped allows the printer to be moved with a forklift, or handcart. Because of the weight of the printer, it is easier and safer to use one of these devices to move the printer to its intended installation location. *Second:* Leaving the printer in the carton while it is being moved within your facility will help to protect the printer during any movements to this location. Once the printer has reached its intended location you should begin the unpacking process.

Open the cardboard box from the top. Do not cut deep into the carton, as there are items located just under the top. Remove the items located on the top insert. Remove the top insert. Remove the printer from the box. Inspect the printer for shipping damage. If damage is discovered, contact PAXAR for further instructions - in the U.S.A. at (570)-888-9116. In other countries please contact your local PAXAR supplier. Once you are satisfied that there was no obvious shipping damage to the printer, continue with the installation.
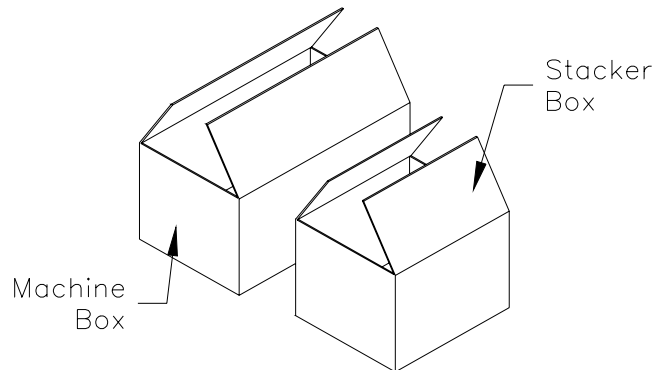
Shipping Cartons.

Save the shipping materials to relocate the printer or return to factory for service.

Inventory of Components

The following list shows the additional parts (pieces) which should be included in your PAXAR 545 shipping containers. If anything is missing, notify PAXAR immediately - in the U.S.A. at 570-888-9116. In other countries please contact your local PAXAR supplier.

- PAXAR 545 "User's Manual"
- Quick-disconnect power cord
- Serial communications cable & converter.
- Stacker assembly
- One or two print modules as ordered.
- PCMCIA Card containing special Swiss fonts for the 545 printer, also used to store Logos or additional fonts that were special ordered.   (located in the back of the manual)
- Any optional software ordered.
- Tool kit

NOTE: Some of the above parts may be inside the envelope containing the tool kit.

PAXAR 545 TOOL KIT (#341390)

101324	7/64" Ball Driver
181301	2.5mm Ball Driver
241149	Anti-Static Gloves (2)
241132	Anti-Static Wrist Strap
351156	Chip Removal Tool
921309	Hex Key Set
921338	Printer Cleaning Kit
921352	Screwdriver
921353	Phillips Head Screwdriver
921362	Pkg. / Foam Cleaning Swabs (25)
921364	3/16" Long Ball Driver

Ink Cartridge Return Program

Empty ink cartridges can be returned to PAXAR for credit. Please contact your sales representative for more information.

Product Description

Printer Description

The PAXAR model 545 ink jet printer is an electronic printer that can print on fabric rolled tape. The printer interfaces to a computer or a main frame system thus allowing electronic data input or even custom design of labels with PAXAR'S "Formatter / PcMate Plus" program. This printer can generate a complete label printed on one or two sides.

♦ United States Patent Number 6,142,622

• Design your own labels on a PC

• Computer interface = IBM Compatible

• Mainframe direct interface

• RS-232 9 Pin D shell female Serial interface connector
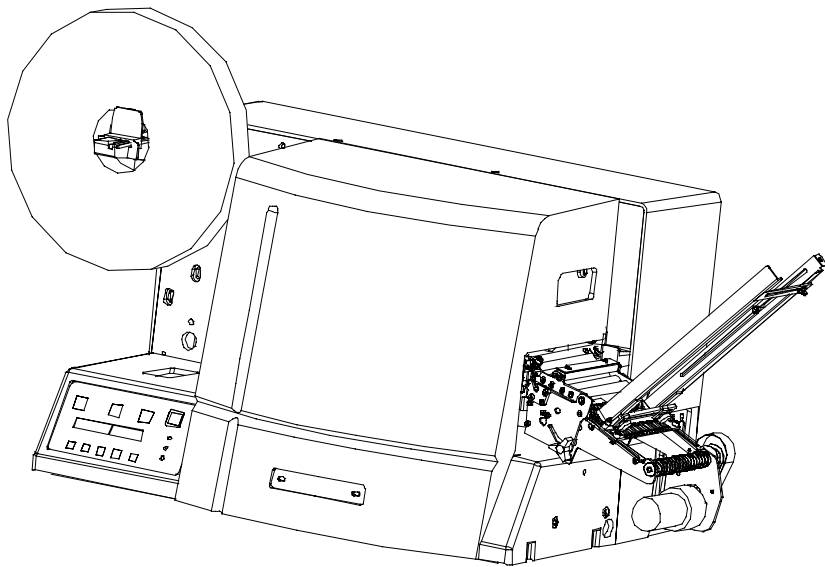
Paxar Model 545 Label Printer

Printer Specification

Print method:	Narrow web ink jet one or two sided print – Single color only – 2/0 Future Speed – 4" (101.6mm), 6" (152.4mm) or 8" (203.2mm) per second
Label Size	Max: up to 1.5" (38.1mm) web x up to 3.5" (88.9mm) feed - cut and stacked Up to 6" (152.4 mm) feed w/ rewind Min: .5" (12.7mm) web x .625" (15.9mm) feed
Print Area	Max: up to 1.36" (34.54mm) web x up to 5.85" (148.5 mm) feed Min: No restrictions
Resolution	185.3 DPI across the web x 192.2 DPI in the feed direction
Fonts	Scalable fonts resident: condensed, standard, and bold typefaces, upper and lower case 6 point up to 96 point All rotations 0°, 90°, 180°, 270°
Logos	No restriction on number or size per tag (up to maximum image area) All rotations 0°, 90°, 180°, 270°
Care Symbols	Full Ginetex Care Symbol set and full NAFTA Care Symbol Set Fully Scaleable All rotations 0°, 90°, 180°, 270°
Justification	Left, Right, and Center field selectable
Stock	Support for blank and pre-printed fabrics – Roll size up to 12" (305mm) diameter
Interface	PAXAR PCL via RS-232 serial port – 9 pin D-shell
Control Panel	Push-button printer function with 2 Line x 24 Character International LCD Backlite Display
Dimensions	17.0" (431.8 mm) high x 31.5" (800.1 mm) wide Including stacker x 20.0" (508mm) deep
Weight	80 Lbs. (176kg) Shipping: Machine 92 Lbs. (202kg) Stacker & Supplies – 58Lbs (128kg)
Electrical	Operator selectable 90-132 or 180-265 VAC 50-60Hz 6.25Amp
Temperature	41°F (5°C) to 104°F (40°C)
Humidity	5% to 90% non-condensing

Other Features	- Downloading of information while printer is operating
	- Sequenced Fields (Printer installed fonts)
	- Time / Date Stamping (US or European format)
	- Operator adjustable: print positions, cut position, baud rate
	- Error Detection of: fabric out, splice, ink out, full stacker, stacker jam
	- Display: labels left to print in a batch, batch ID, total life inches, total life cuts
	- Self Diagnostics
	- Missed sense mark detection and correction (Future)
	- Slot, Notches, Hole or Reflective registration detection (Future, depending on option)
Ink	PAXAR wet cartridge ink
Options	- Rewind Unit (115V or 230V)
	- Optical Hole / Notch Sensor (Future)
	- Bottom Reflective Sensor (Back of Web Only) (Future)
	- Top Contrast Sensor (Future)
	- PCMate DOS
	- Spare Parts Kit
	- International Hardware Kit

Personal Computer Specifications

This specification describes the hardware and application software requirements for the Personal Computer that is used to download to the PAXAR 545 Printer.

The PAXAR 545 Printer uses a DOS Version of PCMate or a Windows version of "PcMate Plus / Formatter ". These applications create the tag or label formats (layouts) then fill and transfer data to the printer through the serial port of the computer.

"PcMate Plus / Formatter " Requires the following;

- IBM® PC or compatible
- Microsoft Windows® 95 or higher (Including Win 2000, ME, and NT)
- 16 Megabytes RAM (minimum) - 32 Megabytes recommended
- 50 Megabytes (minimum) free disk space
- Pentium or Pentium Type processor - 200 Mhz or higher
- 3-1/2" floppy drive

Refer to your specific software package for proper installation procedures.

Printer Assembly

Fuse Configuration

The main fuse(s) on the Paxar 545 are located inside the AC entry. The entry has a fuse drawer that holds the fuse(s) and selects the appropriate line voltage. If the voltage in the window **DOES NOT** match the AC line amplitude intended to be supplied to the printer, **DO NOT** plug the power cord in. Reconfigure as follows:

1) Using a flat blade screwdriver, open the AC entry by lifting the tab just above the voltage indicator window.
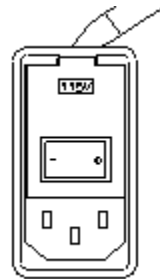
AC Entry

2) Remove the red fuse drawer.
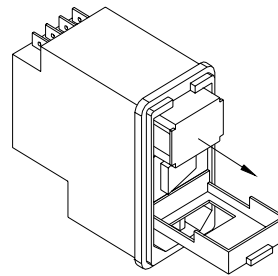
3) Remove all fuses and the fuse jumper if it is present.

4) Insert into the fuse drawer the correct number and style of fuse(s) and fuse jumper for your application.

Configuration Number One: Line voltage within the range of

(See 115VAC Fuse Placement)   90 - 132VAC @ 50 - 60Hz

   1) Install one 990689 – 6.25A 250V Fast Acting 1/4 x 1 1/4"

   2) Install one Fuse Jumper

Configuration Number Two: Line voltage within the range of

(See 230VAC Fuse Placement) 180 - 265VAC @ 50 - 60Hz

1) Install two 990757 6.0A 250V Fast Acting 5 x 20MM

NOTE: The fuse jumper must be removed to install both 5 x 20mm fuses.

115VAC Fuse Placement   230VAC Fuse Placement

1/4 X 1 1/4"
FUSE

115V
220V

FUSE JUMPER

5 X 20MM FUSES
(ONE EACH SIDE)

220V
115V

A | B O C
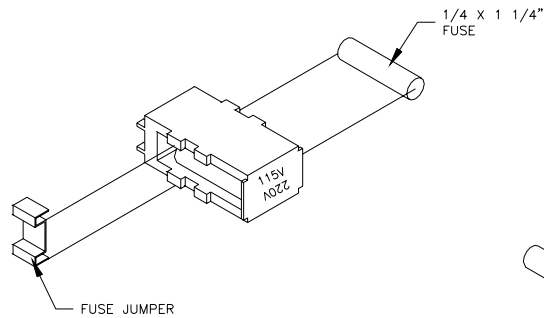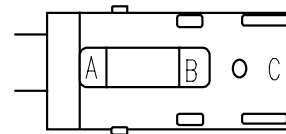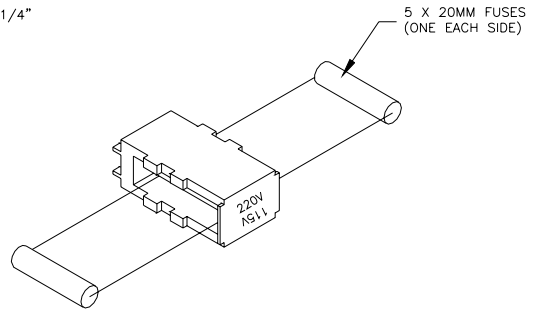
The fuses must be between points A and B as shown, not B and C.

5 X 20MM Fuse Placement

5) Reinsert the fuse drawer into the AC entry with the desired voltage up.

6) Close the AC entry and verify the correct voltage is now visible.

Installing the Power Cord

A power cord is shipped with each printer. The cord for 115-volt printers will use the standard three-prong plug used in the U.S.A. A 230-volt printer and some other 115-volt configurations will have the plug end of the cable removed. It is the customer's responsibility to have the plug alteration work done by a certified electrician. Paxar supplies printers to many countries with many variations. Therefore we leave this to the customer to make the proper selection for their country.

P.C. Board Identification
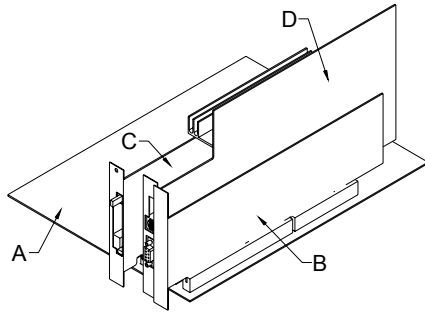
A – Mother Bd. (371170)   - Horizontal on bottom of printer

B – Head Driver Bd. (341106)   - AT Slot 1(From Rear Of Printer)

C – Memory Card Bd. (350016)   - AT Slot 4

D – Thermal Control Bd. (371105IJ) - AT Slot 2

E – Front Panel Bd. (511108)   - User interface system located on front of Machine (Not Shown)

TCB Dip Switch Settings
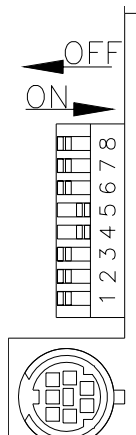
#		OFF	ON
1	PRINTHEAD RESOLUTION	OFF = 192 DPI	ON =
2	UNDEFINED	OFF = Default	ON =
3	PRINTER TYPE	OFF = Default	ON =
4	PRINTER TYPE	OFF =	ON = Default
5	STACKER JAM SENSOR	OFF = DISABLED	ON = ENABLED
6	UNDEFINED	OFF = Default	ON =
7	UNDEFINED	OFF = Default	ON =
8	LOKPRINT / DOWN STACKER	OFF = LP	ON = DS

Inserting a PCMCIA Card

A PCMCIA card can be used to store fonts, logos, and operating system upgrades. To insert the card, make sure that the manufacturer's name is facing the front of the machine. Insert the card so that the end with the holes goes in first. Slide the card in until it reaches the back of the slot and the eject button pops out. To eject the card push in the eject button and then pull the card out. Some machines will ship with a double slotted card option. If using a single IC card, the card must be inserted into the slot closest to the rear of the printer.

NOTE: The printer loads the data from the PCMCIA card at power up, after inserting a PCMCIA - power cycle the machine.
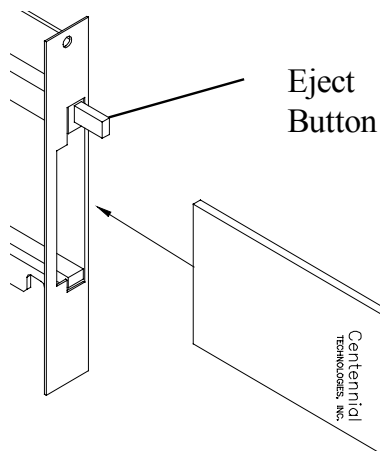
Print Module Insertion and Removal

CAUTION: Turn off the power to the printer before removing or inserting the print module. Hot swap of the print module has been built into the design. However, a dirty connector from ink etc could prevent it from protecting the head. Therefore, we recommend that all print module removal and replacement be done with the power off.

NOTE: An ink cartridge must not be present in the print station before a print module can be installed or removed. The print module(s) must be in the parked position.

Remove the print module(s) from the separate packaging. Remove the packaging from around the print module and save with the rest of the printer packing supplies. Swing open the top cover to the printer. In order to install or remove the print modules the ink cartridges **MUST** be out of the machine. To install the print module push the module release lever (A) to the right and with your other hand align the module between the mount rails. Slide the module down until it makes contact. After the module makes contact continue pushing until the module moves down approximately 3/8" more. Then release the lever to hold the module in place.
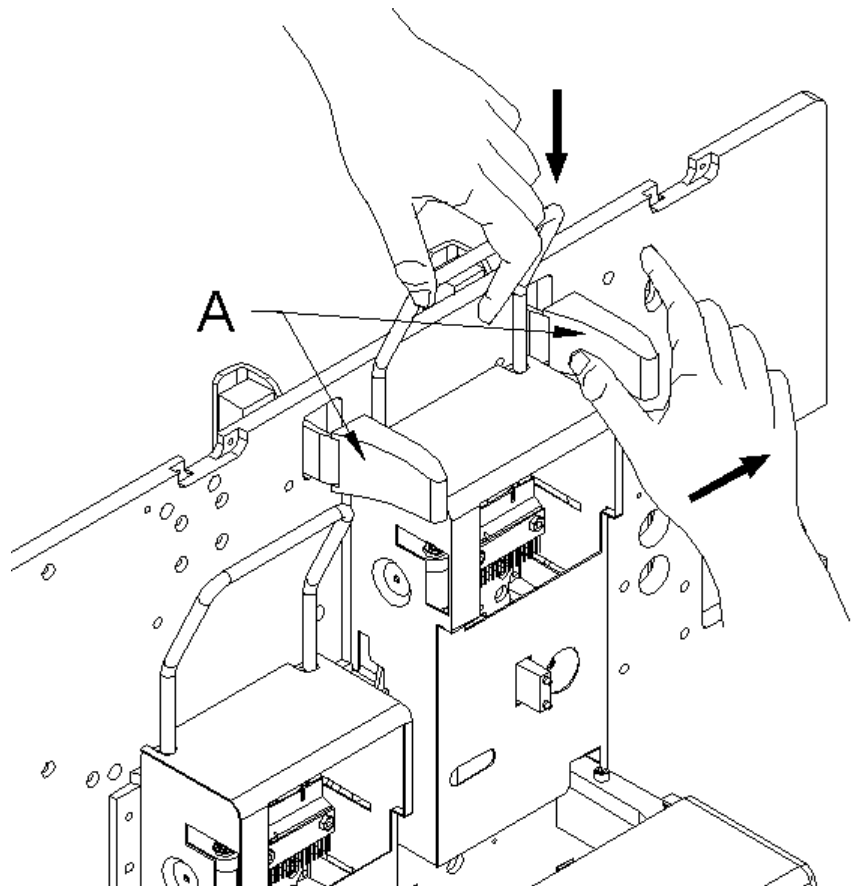
Print Module Handling

CAUTION: Do not lay the print module flat on the sides, back, or front if removed from the printer. The unit must stand on end as shown below.
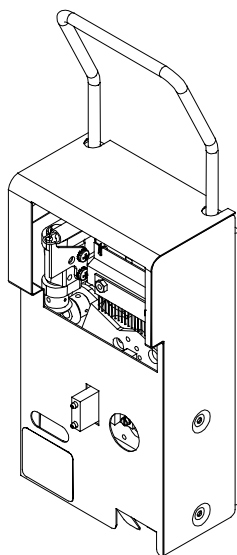
Installing the Stacker

Remove the stacker from the separate packaging. Remove the packaging from around the stacker and save with the rest of the printer packing supplies. Swing open the top cover to the printer. Make sure that the stacker bed is in the most upright position by loosening the locking knob and rotating the bed up and then re tightening the locking knob. Locate the clearance hole as shown below in the center of the knife's mounting bracket. Place the stacker into position by inserting the screw in the stacker's mounting plate into the clearance hole and making sure that the stacker is resting on the two leveling pins. Using a 3/16" long handled ball driver tighten the screw until the stacker is secured in place. Adjusting the stacker position is covered later.

Clearance
Hole

3/16" Long
Handled Ball
Driver
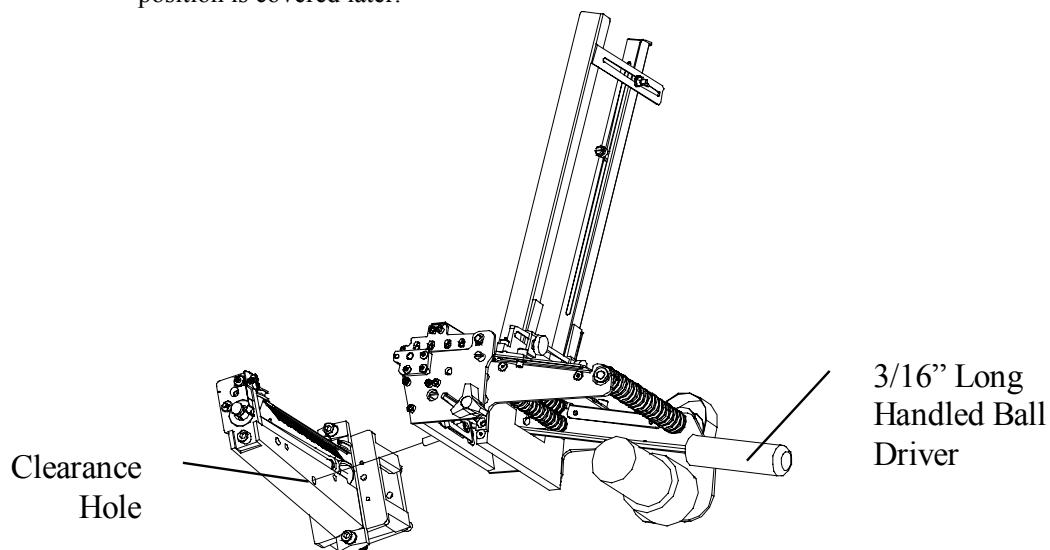
Install the stacker up-right rails. Remove one of the spring-loaded screws. Insert the spring-loaded screw through the mating hole in the up-right rail assembly. Thread the spring-loaded screw into the mounting block. Repeat the above procedure for the other rail. Remove the spring-loaded screw and washer from the top of the inner stacker rail. Place the threaded stud into the slot of the outer rail and reattach the washer, spring and nut.
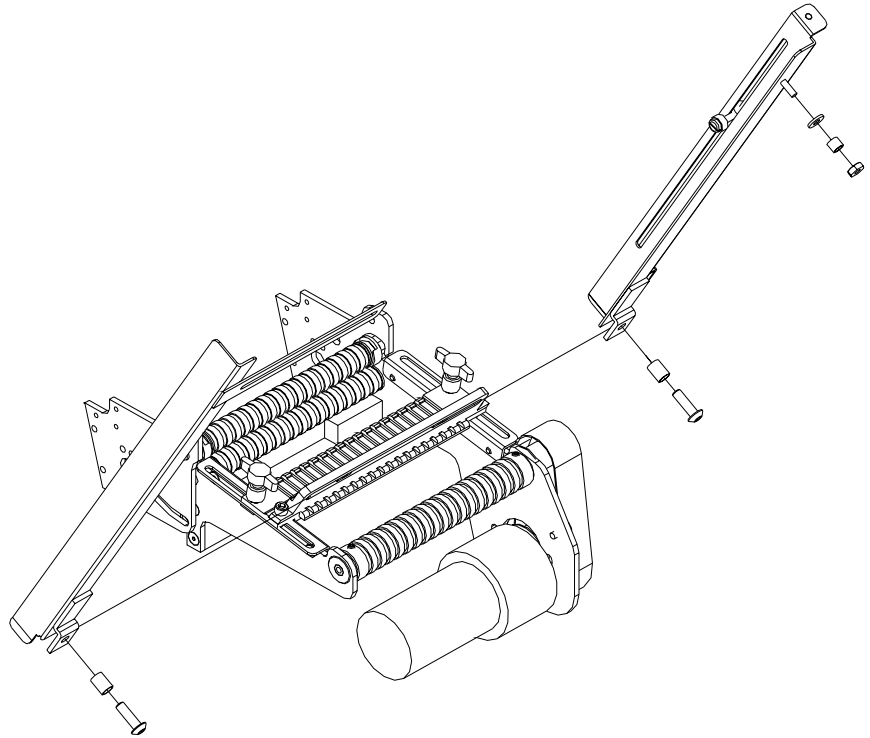
Cable Installation

Stacker Cable

There is a cable with a connector leading from the back of the stacker that plugs into a socket on the TCB (refer to the P.C. Board Identification section in this manual). The socket and plug are polarized. Rotate the plug until the polarized keyway and socket align and push the stacker connector into the socket.

PC Interface Cable

The 545 requires a 9-pin RS-232 cable which is provided with the printer. If the cable was not found it can be ordered from PAXAR - (Part no. 351124).

The male end of the cable should be connected to the 9-pin D-shell female connector that is located on the right side of the printer at the TCB (refer to the P.C. Board Identification section in this manual). The female end of the cable is made to fit a 9-pin male RS-232 connector on the back of a PC. In case a 9 pin serial port is not available, a 9 to 25 pin converter is also shipped with the printer.

Keyboard

An optional keyboard can be connected to the printer for diagnostic purposes to be used by PAXAR service representatives only.
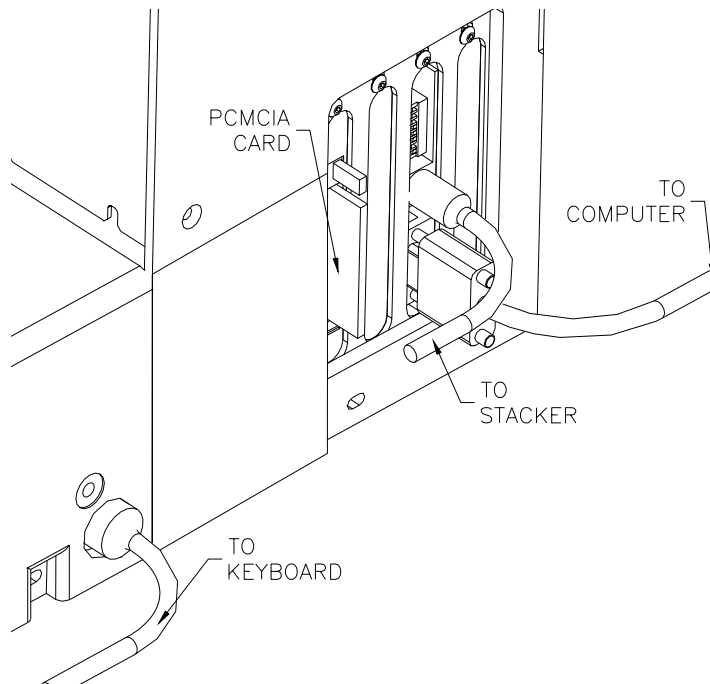
Installing the Applications Software

The software to drive the Paxar family of printers is covered in separate documentation. The "PcMate Plus / Formatter " software to create formats on site for the Paxar 545 printer is a Windows application. The original "Selfform" will not support the 545. The new "PcMate Plus / Formatter " package is capable of creating formats for all Paxar control printers. Version 3.16.3 or higher is needed.

The original DOS version of "PcMate" has been updated to drive the 545 printer. PCMate DOS version 3.05 or higher is needed.

The printer is also capable of operating directly from a mainframe when using the RS-232 interface and Paxar's PCL command language.

Printer Operation / Adjustments

Installing and Removing Ink Cartridges

CAUTION: NEVER INSERT YOUR HAND IN THE INK CARTRIDGE SLOTS AS THE PRINT MODULE NEEDLES ARE UNPROTECTED WHILE THE PRINT MODULES ARE IN THE PRINTER.

The individual ink cartridges are color specific and are identified accordingly. To achieve maximum performance from the 545 the color of a print module may not be changed. Changing the color on a print module may contaminate the head. Using ink not tested and approved by PAXAR may also damage the print heads. Use the procedure and diagram below for loading the ink.

1) Determine the color of the print module that needs an ink cartridge. The print module in the left position prints the bottom of the label if the 545 is printing one over one.

2) Remove an ink cartridge of the same color from its shipping package and insert it into the slot below the print module. The end with the two round holes goes into the slot with the label up. Align the cartridge so that the guide rail at the bottom of the slot opening slides into the groove molded in the bottom of the cartridge. Push the cartridge in until it comes to a stop
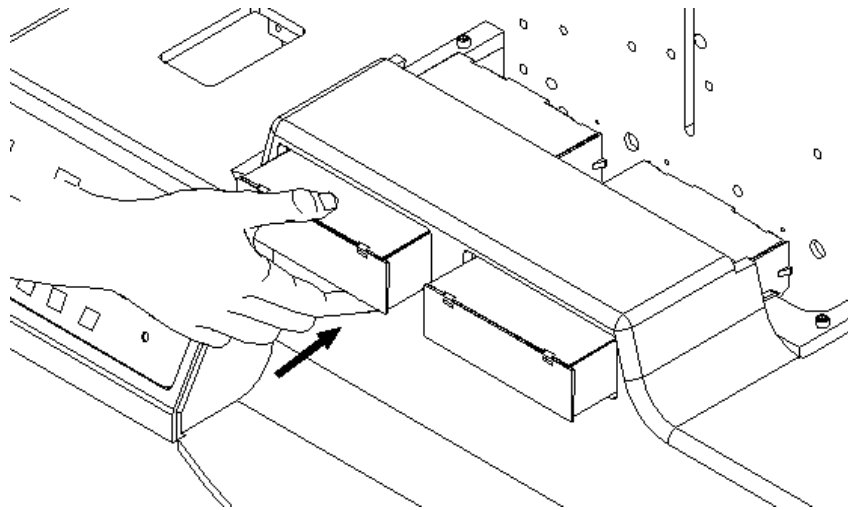
3) Remove the ink cartridges by pulling them straight out from their current position.
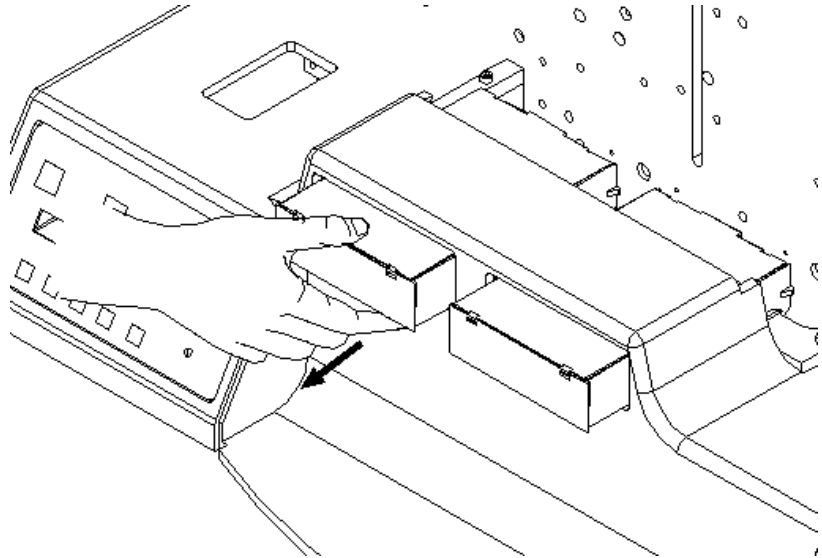
Adjusting the Unwind

Before loading fabric for the first time and anytime the fabric width changes - the unwind position must be adjusted - as the 545 is a center justified machine.
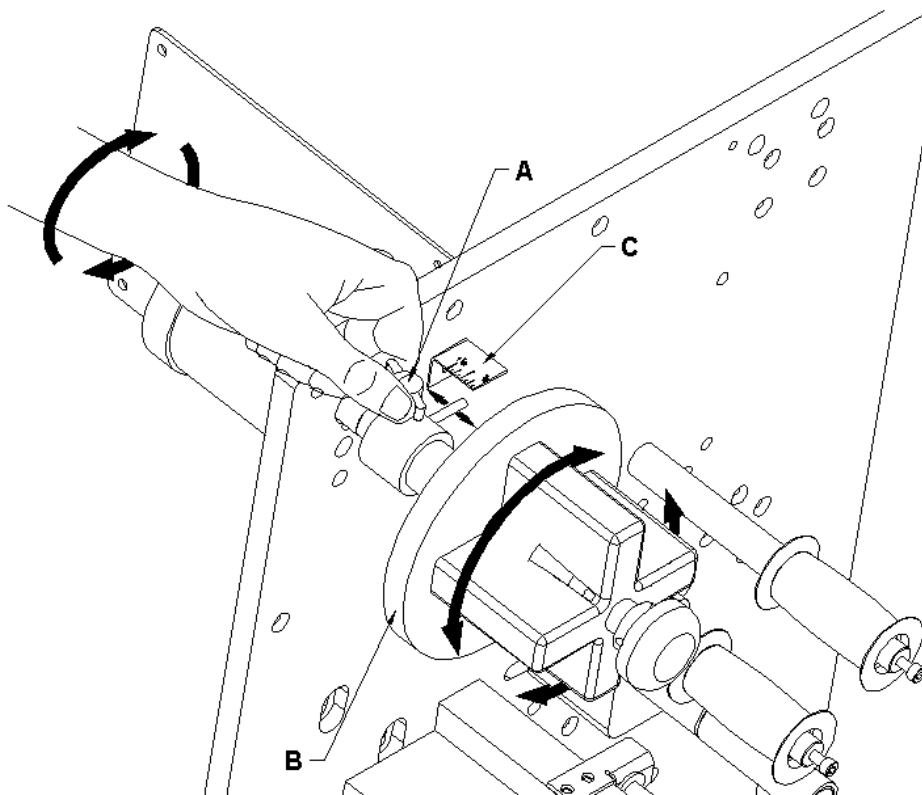
- Loosen the unwind back plate locking thumbscrew A.

- Rotate the back plate B clockwise to increase or counter clockwise to decrease the web width until the desired width is indicated on scale C.

- Retighten the locking thumbscrew.

Loading Fabric for the First Time

- Once the unwind position has been adjusted for the job width load a roll of fabric on the unwind core support so that the fabric pulls off the top clockwise.

- While holding the unwind from spinning - tighten the core by turning the center knob clockwise. Confirm that the core is against the back stop.

- Pull the tab on leader to release the end of fabric and cut off all fabric that has any tape or adhesive remaining. Pull off about 2 feet (.5m) of fabric to thread through the printer.

NOTE: The pull-tab / adhesive will be used on the subsequent rolls loaded at a Stock Out Error to accelerate the reloading process.

Threading Diagram

- Open the hinged cover to the printer and thread the fabric through the splice / fabric out sensor (B drawing two), the active unwind, the barrel rollers, the head guards (A drawing two), the feed module, the knife, and then the stacker as shown.

2/0 AND 1/0 THREADING PATH

NIP ROLL

FEED ROLL
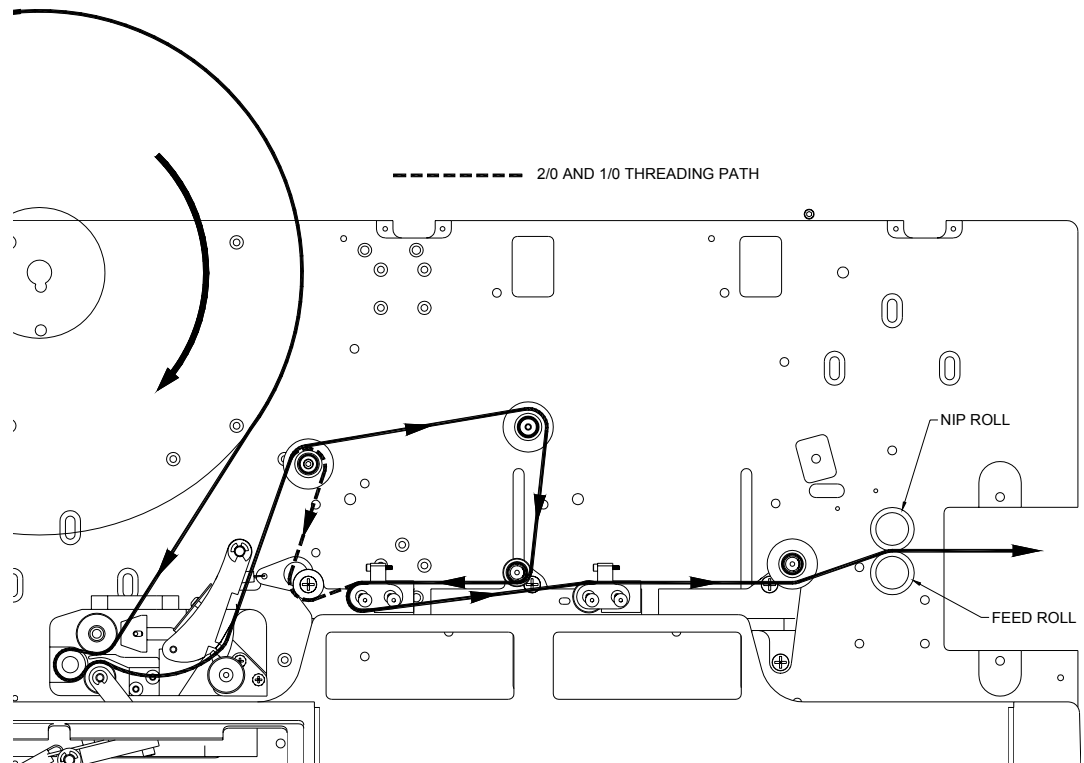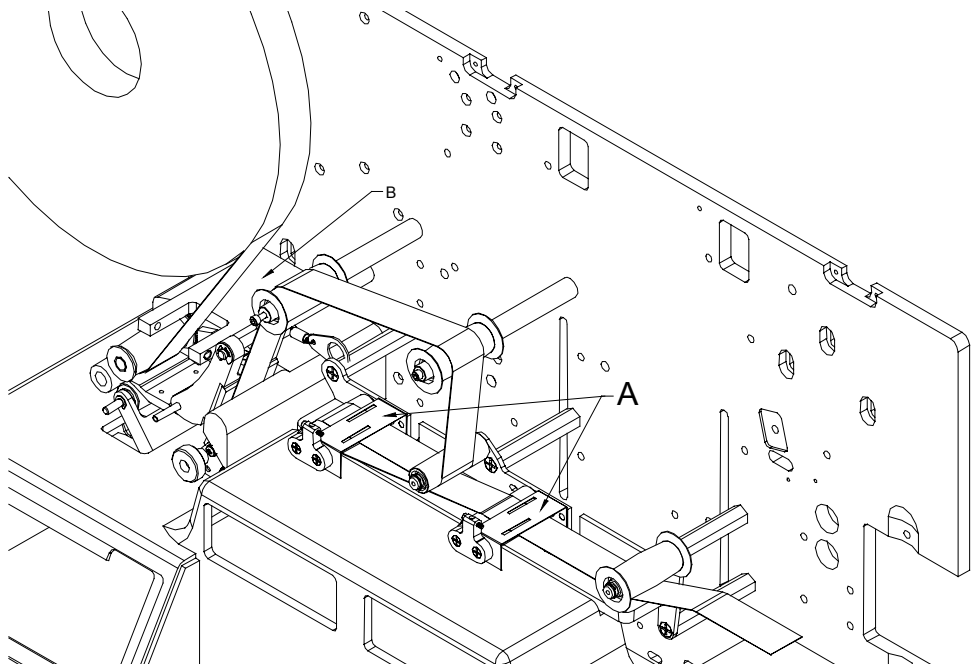
Once the machine has been threaded and is pulling fabric from the supply roll the active unwind will automatically sense the tension of the fabric and adjust the pull off speed accordingly. This will result in a loop in the fabric under the active unwind sensor of about .250" as shown below.

.250
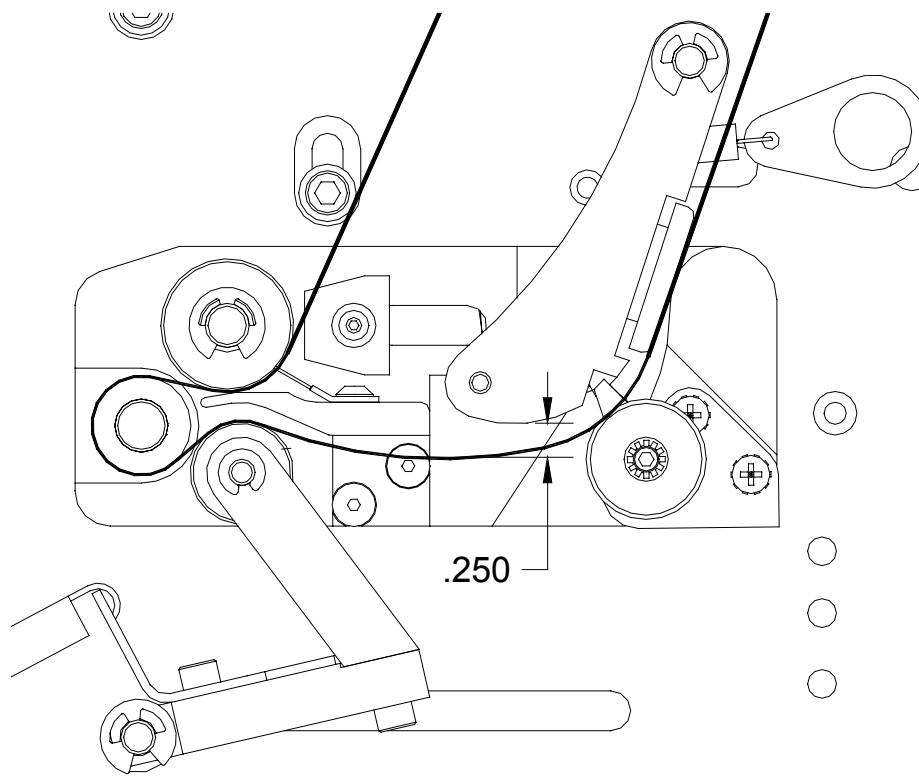
Web Guide Adjustment

The Paxar 545 printer has been designed with crowned rollers to maintain center tracking. The only web guides in the printer are located on the active unwind block. These web guides are adjustable without the use of tools. The only other web width adjustment is the stacker up-right rails (refer to the Stacker Label Width Adjustment).
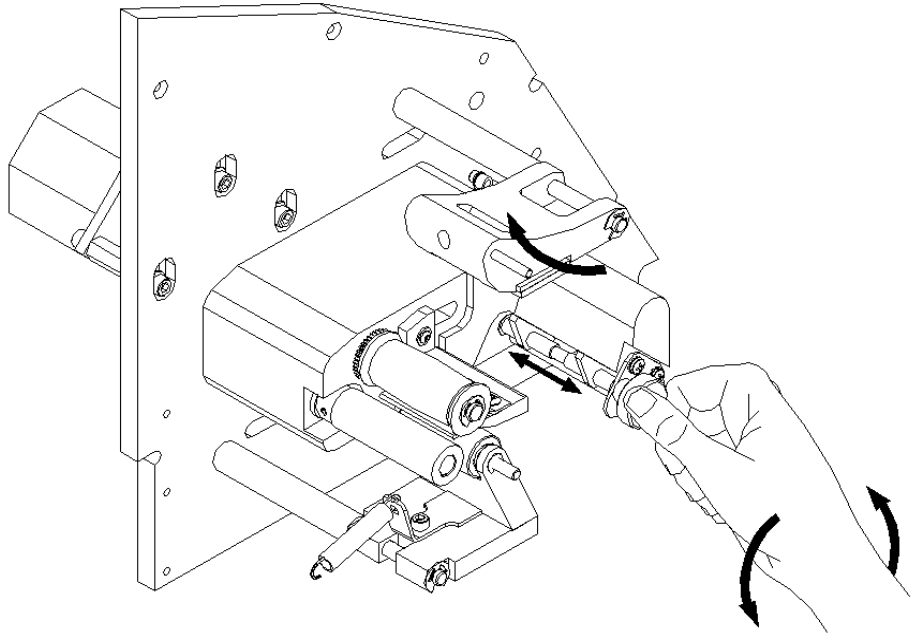
- To increase the web guide width, turn the adjustment knob counter-clockwise.
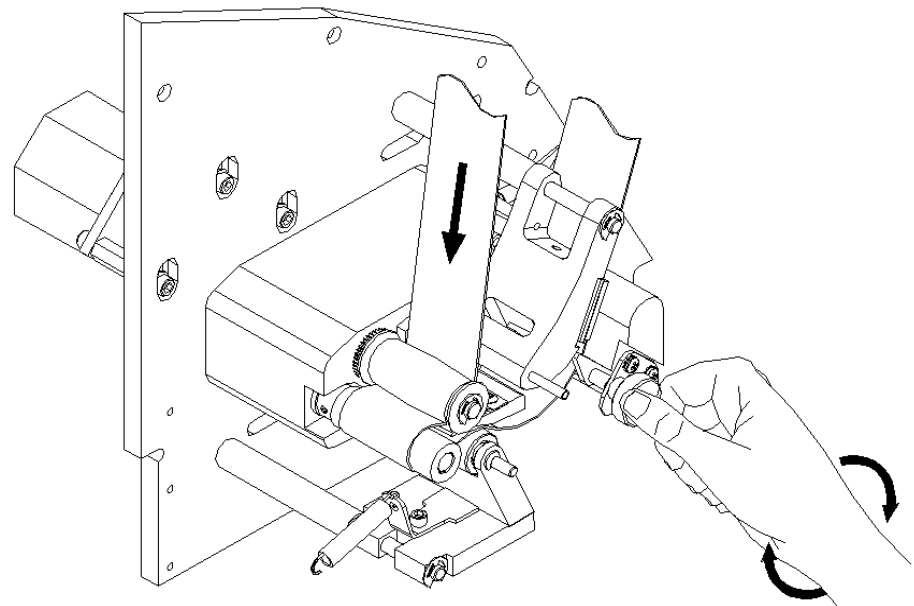
- Turn the adjustment knob clockwise so the web guides are holding the fabric without deforming the sides.
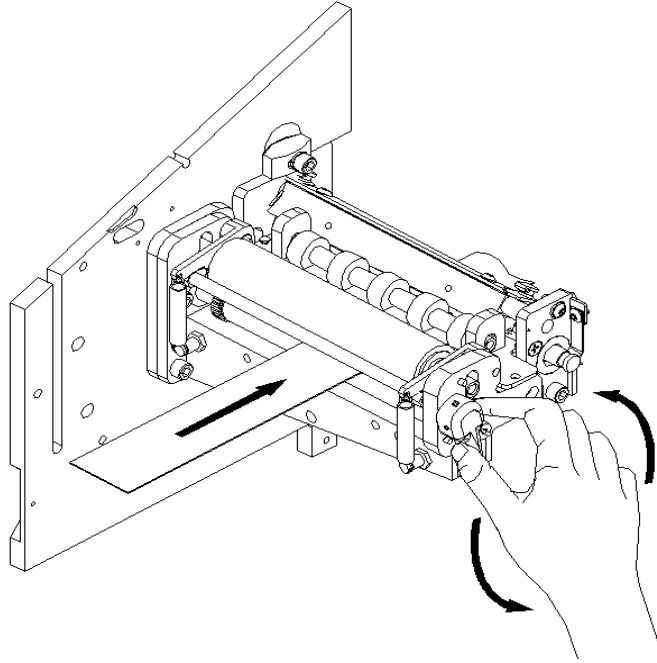
- Open the feed roller by turning the feed lever counterclockwise.

- Once the fabric is beyond the last roller - continue straight into the feed rollers, through the knife module and then through to the stacker belts. You will need to lift the pre-feed rollers between the feed and knife in order to push the fabric through the knife.
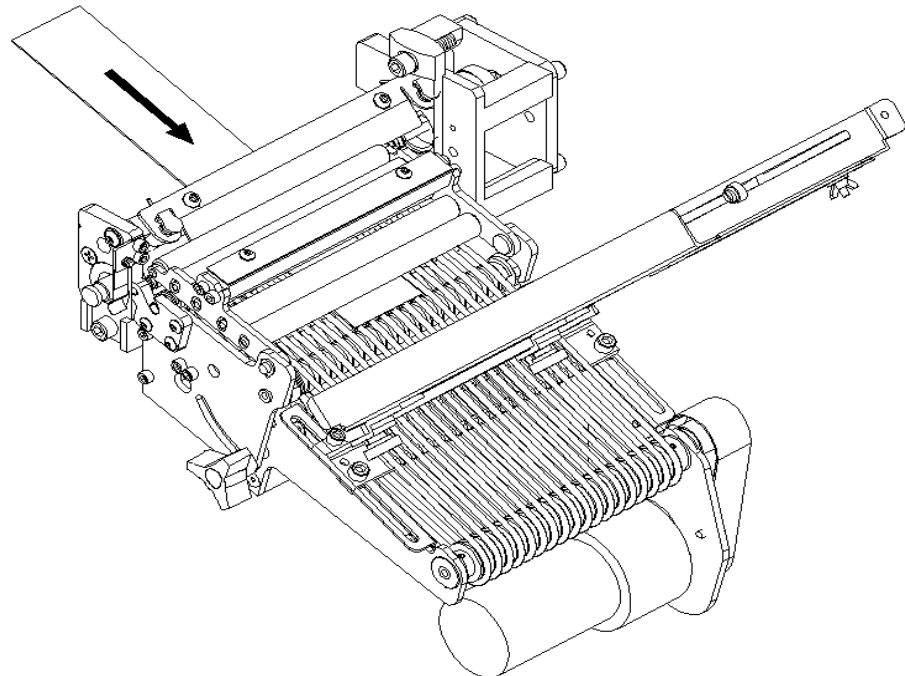
- After the fabric is pulled through the knife, continue feeding through to the stacker belts.

Stacker Position Adjustment
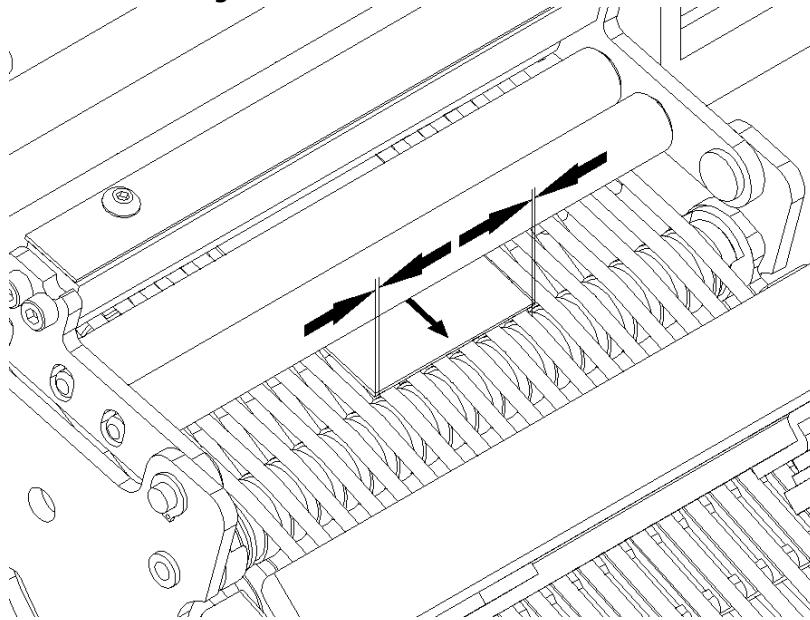
- Once the web has been centered in the printer or it has stabilized from running, confirm that equal numbers of belts exist on either side of the fabric, and that the spacing to the nearest belt is the same on each side. This is achieved by loosening the stacker mount screw and moving the stacker forward or back accordingly.

Stacker Label Width Adjustment
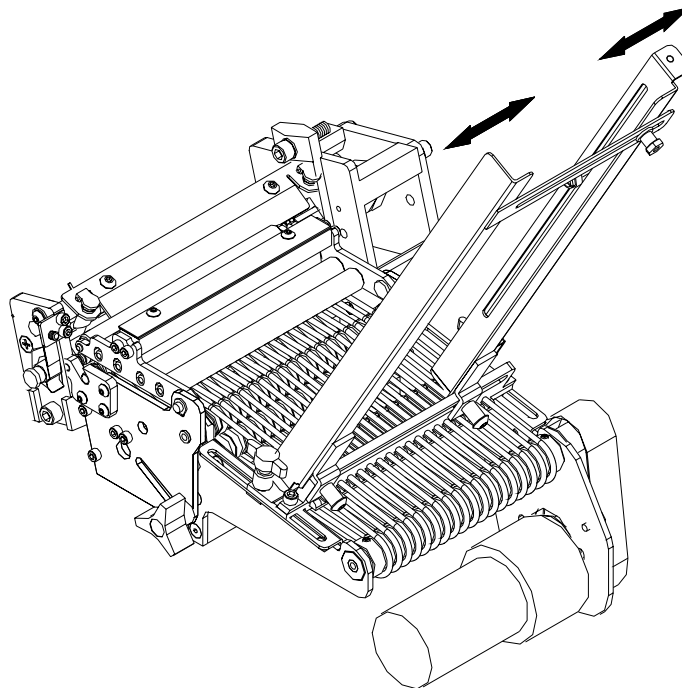
- Slide the left and right spring loaded upright rails to the desired position.

Stacker Label Length Adjustment
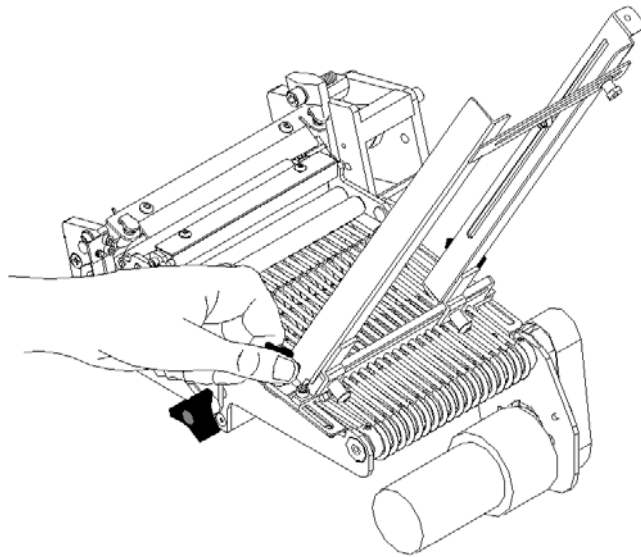
- Loosen the "T" head thumbscrews on either side of the upright base.
- Slide the entire base to the desired position so that the cut label hangs over the last belt roller approximately ¼" (6mm)

Stacker Angle Adjustment
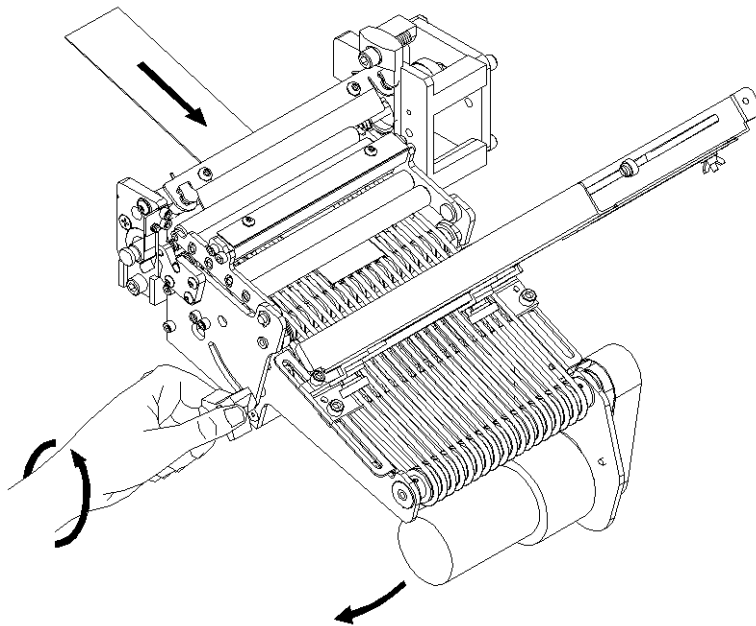
- Turn the lock knob counter-clockwise to allow the stack end of the stacker to rotate.
- Once the stack is so that the stacker rails are approximately 5° to 30° off horizontal, tighten the lock knob by turning it clock-wise.

Stacker Full Level Adjustment
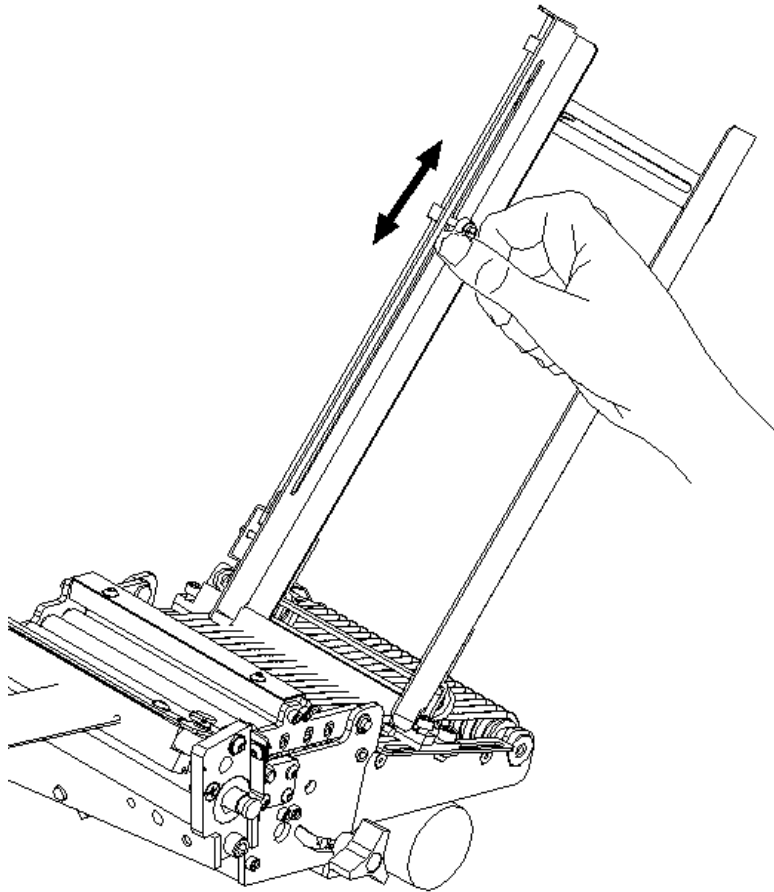
- To change the height at which the machine will stop, first loosen the plastic thumbscrew located on the stacker upright and slide it up or down.

- Once the desired stop level is reached retighten the thumbscrew.

- Do not bring the thumbscrew in contact with the top of the slot. The thumbscrew must be able to move up approximately 3/16" for the switch to be activated and stop the printer.

- **Note**: Not all material and or label sizes will reach the top of the stacker. Set the stacker full level accordingly.

Replenishing Fabric at End of Roll

- The PAXAR 545 has been designed so that the fabric can be replenished quickly.

- Cut the fabric from and remove the spent fabric roll core.

- Place a new roll on the unwind and adhere the end of the last roll still threaded in the printer to the leader of the new roll. Make sure you have determined the orientation to prevent any twisting in the fabric.

- The front panel START button will then automatically advance the joint splice beyond the print stations prior to the print heads swinging into the print position. This prevents any labels from being produced on the joint splice.

- Remove the "advance splice stripes" containing the joint splice as they arrive at the stacker.

CAUTION: DO NOT ATTEMPT TO PRINT ON HAND MADE SPLICES AS PRINT MODULE DAMAGE MAY OCCUR. A SPLICE MAY CONFLICT WITH THE PRINTHEADS OR HEAD SWING ARM MOVEMENTS. IF A SPLICE HAS BEEN MADE FOR ANY REASON OTHER THAN A "STOCK OUT" ERROR CONDITION MANUALLY ADVANCE IT BEYOND THE PRINT STATIONS.

NOTE: Whenever fabric of a different width is threaded through the printer, a sample run should be performed. If the print quality / registration is acceptable, you can immediately begin your production run. If the print quality / registration needs to be optimized, refer to the Printer Setup procedure and make the necessary adjustments.

Splices

The PAXAR 545 machine and the fabric it prints on have been designed so that factory splices can be detected. When a splice is detected, the machine will stop with a "STOPPED FOR SPLICE " error.

- The front panel START button will then automatically advance the factory splice beyond the print stations prior to the print heads swinging into the print position. This prevents any labels from being produced that contain splicing material.

- Remove the "advance splice strips" containing the splice as they arrive at the stacker.

CAUTION: DO NOT ATTEMPT TO PRINT ON HAND MADE SPLICES AS PRINT MODULE DAMAGE MAY OCCUR. A SPLICE MAY CONFLICT WITH THE PRINTHEADS OR HEAD SWING ARM MOVEMENTS. IF A SPLICE HAS BEEN MADE FOR ANY REASON OTHER THAN A "STOCK OUT" ERROR CONDITION MANUALLY ADVANCE IT BEYOND THE PRINT STATIONS.

Print Head Operation

Each print module consists of two print heads mounted one on each side of a swing arm. Through an electronic delay the two heads form a single print line. The arm has two positions, the parked position and the print position. Upon the start command the heads are rotated 90 degrees to the print position, and at the stop command the heads are retracted back to the parked position where head maintenance can take place if needed. A sensor located on the PCB in the print module monitors the swing arm position. Care should be taken not to obstruct the path of the print head swing arms as it may disrupt their travel and adversely effect print quality.

Parked Position
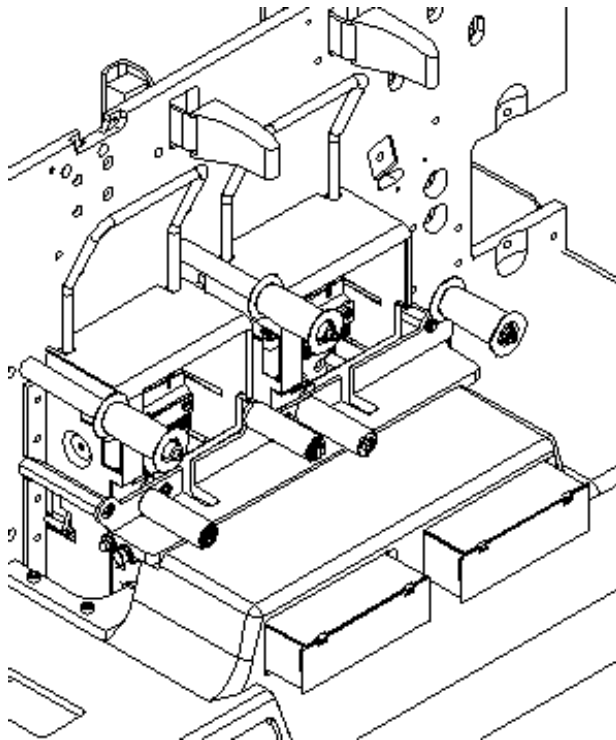
Print Position
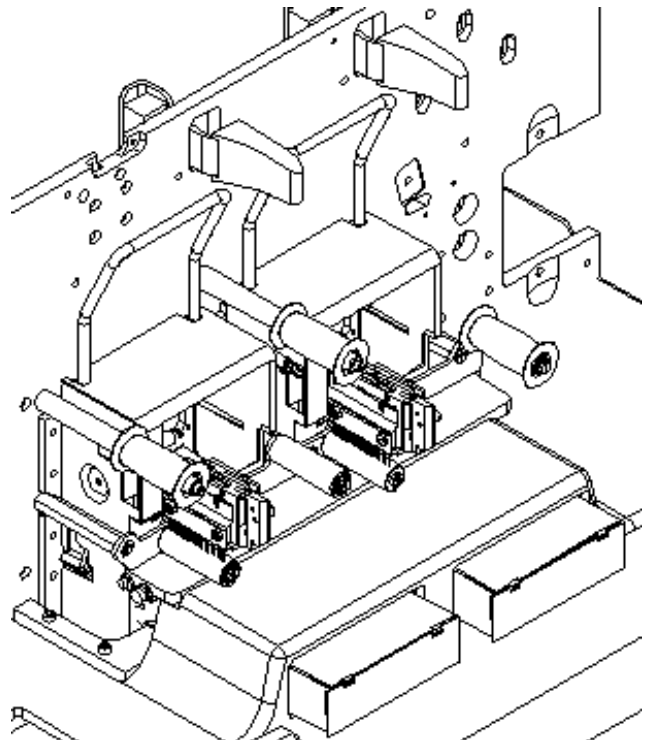
Printer Setup

From time to time it may be necessary or desirable to reset the printer to a known state of print / cut. The following procedure can be used to make the necessary changes. Only adjust the adjustments that are needed in the order that follows;

1) Clean the machine as needed.

2) Check and adjust the unwind and web guides as needed for the fabric width that is loaded on the machine.

3) Using a 5/64" hex key adjust station 1's head swing arm stop screw to produce print on the back of the label that has neither a gap or overlap in the center of the print image. Rotating the screw counter clockwise will decrease the overlap or increase the gap. Rotating it clockwise will decrease the gap or increase the overlap. Once adjusted properly the image on the back of the label should appear square with no gap or overlap in the center.

4) Adjust station 2's head swing arm stop screw the same as station 1 to produce print on the front of the label that has neither a gap or overlap in the center of the print image.

5) Using the print line label format adjust the mount angle of the knife as needed to produce a square cut. Loosen the two mount screws securing the knife module and rotate the entire module then retighten the mount screws.

6) On the front panel adjust the PRINT POSITION STATION 1 to cause the inboard half of the feed print line on the back of the label to be at 1.0".

NOTE: PRINT POSTION STATION 1 adjustment is opposite from all the other adjustment. Using the module view a more negative number moves the print to the right; a more positive number moves the print to the left.

-20   +20
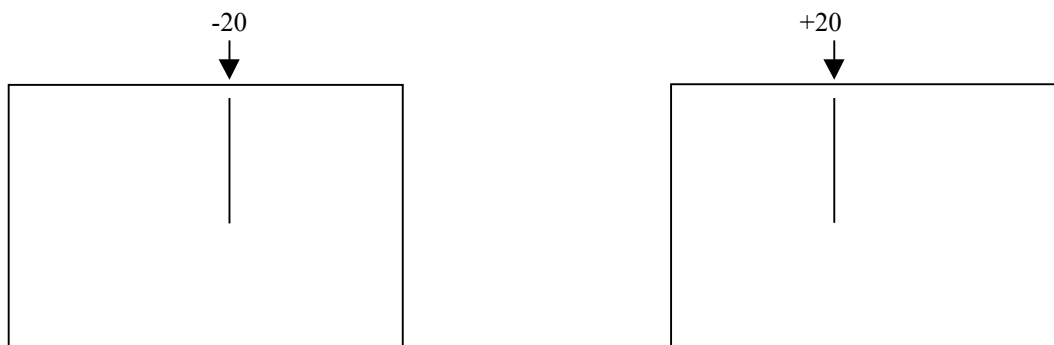
7) On the front panel adjust the PRINT POSITION STATION 2 to cause the inboard half of the feed print line on the front of the label to be at 1.0".

-20   +20
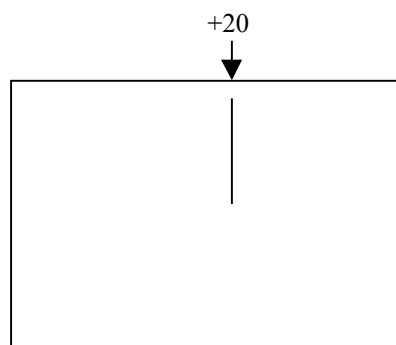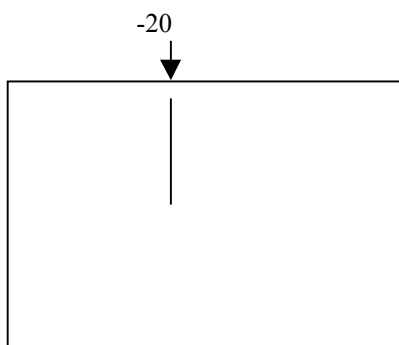
8) On the front panel adjust the PRINT OFFSET STATION 1 to produce one
   straight continuous feed print line on the back of the label.

-20   +20
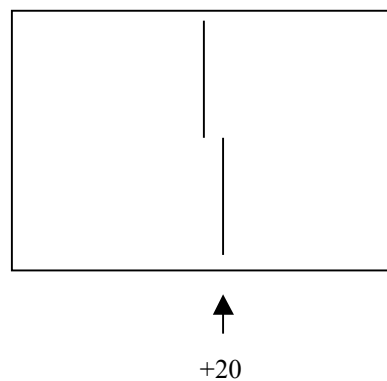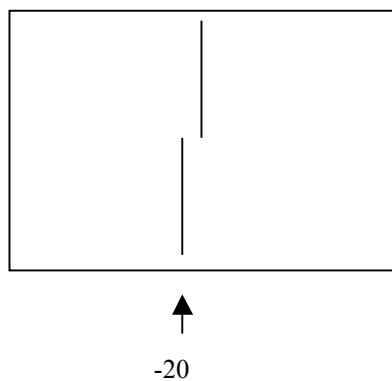
9) On the front panel adjust the PRINT OFFSET STATION 2 to produce one
   straight continuous feed print line on the front of the label.

-20   +20
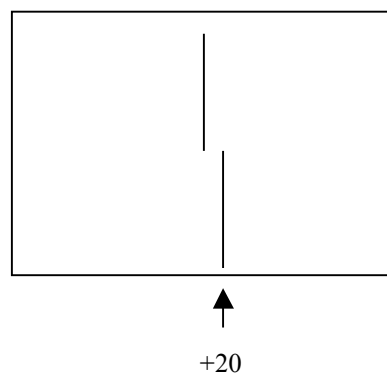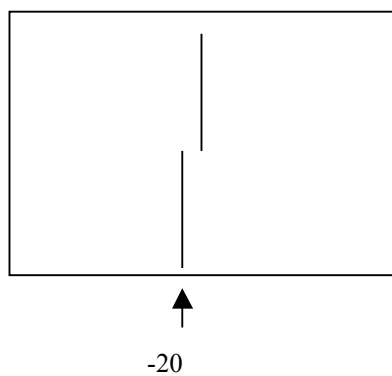
10) On the front panel the CUT POSITION should be set to 0, as this is a non-sense
    mark label.

-10 +10
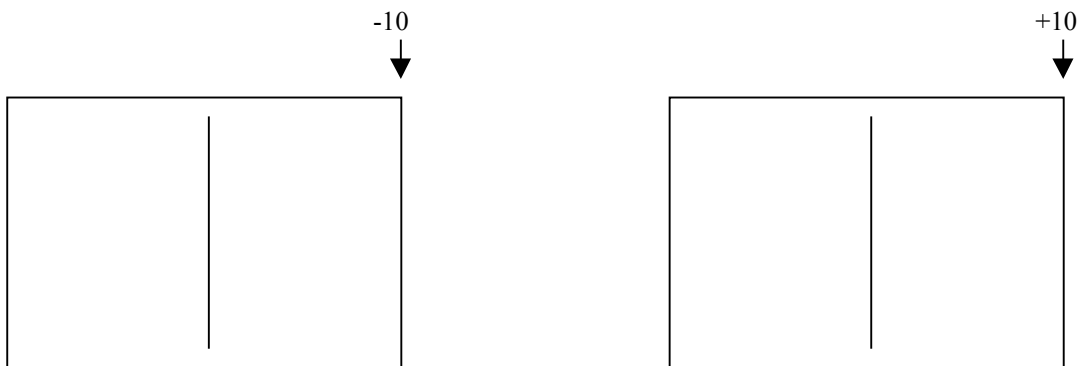
11) On the front panel adjust STATION 2 DOT SHIFT to cause station 2's web print line to be directly over station 1's web print line.

-16 +16
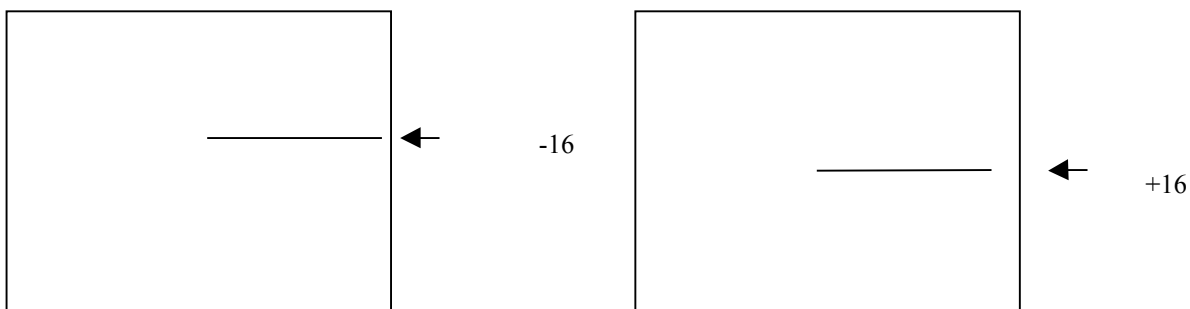
Sensor Calibration

The optical sensors used to detect error conditions in production can be calibrated without the use of a multi-meter via the front panel. One may need to be calibrated if it has just been replaced or put into service. Refer to the Front Panel Mode Descriptions under the Control Panel Operation section.

Control Panel Operation

Control Buttons
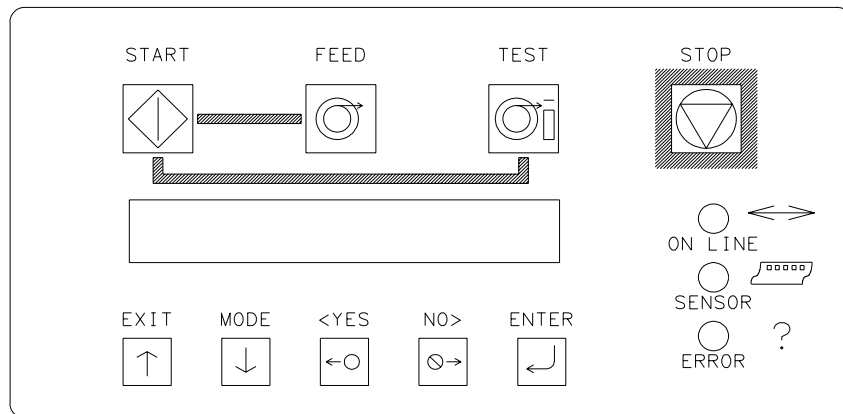
Start

- Starts the printer.
- ON LINE light must be GREEN.

  (Batches downloaded to be printed)

- If "Stopped For Splice" error condition exists: Fabric will be advanced until the splice is beyond the print stations. Labels between the heads and knife will be reproduced and stacked as finished labels.

Feed

- FEED and START must both be used.
- Feed will stop when the buttons are released.
- Labels between the heads and knife will be cut and stacked as finished labels.
- Fabric moves through in one continuous strip.
- Fabric moves through without printing.

Test

- TEST and START must both be used.
- Test will stop when the buttons are released.
- Labels between the heads and knife will be cut and stacked as finished labels.
- Fabric moves through in one continuous strip.

- Fabric moves through with test pattern printing.

Stop

- The stop button will stop the printer at the end of the current label being printed.

Indicator Lights

The Paxar 545 has three Indicator lights. These lights are used along with the LC display to tell the operator the current status of the printer.
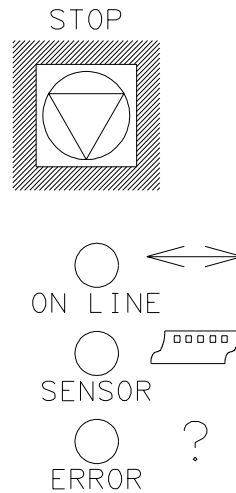
On Line

OFF

- Has not been powered on.

- Is in it's power - up sequence.

- Failed the system test.

After Power up Sequence:

- Printer is running.

ORANGE

- System is operational.

- Ready for batches to be downloaded.

GREEN

- Batches to print, ready to start.

Sensor

GREEN = "C" SENSOR

- Printer is stopped - light is on - sensor is located over a fabric sensor

mark hole.

- Flashing light while the printer is running, - the sensor is in-line with the registration HOLES.

ORANGE = REFLECTIVE SENSOR

- Flashing light while the printer is running, - the sensor is in-line with the registration PRINTED MARKS.

Error

ORANGE

- System inter-lock triggered - see display for error.

LCD Display

The LCD display is a 2 line, 24 character, with back lighting feature for easy readability. The first line of the display in most cases will be a prompt or question. The second line is the response.

Front Panel Menu Map

Ready For Batches	→	Print / Cut Positions	→	Print Head Cleaning Proc	→	Calibrating Sensors	→	Life Counts / Versions	→	Feature Setup	→	Verifier Setup
	→	Print Checkout Format	→	Clean Station 1	→	Hole / Slot In Sensor	→	Label Counter (Re settable)	→	Cutter Enabled / Disabled	→	Print Verifier History
		Print Position Station 1		Clean Station 2		Hole / Slot Not In Sensor		Total Labels Produced		Emulation Mode:		Print Verifier Setup
		Print Position Station 2		Change Default Cleaning Level Station 1		Top Refl Over Mark		Total Inches Of Stock		Language:		Clear Scan Memory
		Print Offset Station 1		Change Default Cleaning Level Station 2		Top Refl Not Over Mark		Controller Version		Protocol:		Verifier Enabled/ Disabled
		Print Offset Station 2		Station Activation		Bot Refl Over Mark		Imager Version		Baud Rate:		
		Change Cut Position				Bot Refl Not Over Mark				Change Date and Time		
		Station 2 Dot Shift				Stacker Blocked						
						Stacker Not Blocked						
						Stock Out Blocked						
						Stock Out Not Blocked						

Front Panel Power Up / Home Screens

POWER UP (DIAGNOSTICS TESTS)

D	I	A	G	N	O	S	T	I	C		T	E	S	T		1					

This screen is displayed while the Front Panel is initializing and waiting for the Thermal Control Board (TCB) response. While this screen is displayed the code will check the functionality of the LED's and the display. Each state of the LED's will be checked - (orange, green, amber and off). The LCD is checked by writing a character to the display, checking for communications and then reading the character back and comparing with the write. If an error occurs, the code will halt the diagnostic test and blink the ERROR LED.

The keypad is also checked during DIAGNOSTIC TEST 1. Each key is tested to see if it is stuck in the on state. If a fault condition is detected, the test is halted and the screen will display the first error key found with the following display:

(	B	U	T	T	O	N		N	A	M	E	)			K	E	Y		S	T	U	C	K

The (BUTTON NAME) will be one of the push button names on the front panel - START, FEED, TEST, STOP, EXIT, MODE, <YES, NO>, OR ENTER.

When the code has finished the above tests, the code will attempt to communicate with the Thermal Control Board (TCB).

D	I	A	G	N	O	S	T	I	C		T	E	S	T		#	#	#			
C	O	N	T	R	O	L	L	E	R		V	E	R	S	I	O	N		0	0	.	0	0

This screen will be updated with diagnostic numbers as the TCB and AT go through different stages of PowerPC initialization.

The diagnostic test screen will also be displayed when the Diagnostic tests that are run able from the front panel are being executed.

Once the diagnostic tests are complete, the Front Panel should display the HOME screen.

HOME SCREEN

R	E	A	D	Y		F	O	R		B	A	T	C	H	E	S						
5	4	5																				

<div align="center">OR</div>

B	A	T	C	H		I	D							Q	U	A	N	T	I	T	Y
P	C	L	0	0	1														1	0	

When the printer is powered up and all initializations are complete, if there aren't any Batches to print, the "HOME" screen will be "READY FOR BATCHES" and the printer model number.

When there are Batches to be printed, the "HOME" screen will be the

"BATCH ID   QUANTITY" screen. The Batch ID / Batch Qty screen displays the currently <u>cutting</u> batch ID and labels remaining to be cut.

When the Batch Id/Qty screen is the home screen and the user presses the EXIT button the Model Number is displayed briefly before the Batch Id/Qty screen is displayed again.

If the printer is performing a FEED or a TEST pattern, the screen will show "FEEDING" or "PRINTING TEST PATTERN" respectively on line two, the top line will be blank

F	E	E	D	I	N	G															

P	R	I	N	T	I	N	G		T	E	S	T		P	A	T	T	E	R	N	

Pressing the MODE / Down Arrow key will take the user to the various mode screens listed below (Refer to the Front Panel Mode Descriptions section in this manual).

Pressing the EXIT / Up Arrow key at any time will take the user back to the "HOME" screen.

PRINTER ADJUSTMENTS

P	R	E	S	S		E	N	T	E	R		F	O	R						
P	R	I	N	T	/	C	U	T		P	O	S	I	T	I	O	N	S		

PRINTHEAD CLEANING

P	R	E	S	S		E	N	T	E	R		F	O	R						
P	R	I	N	T		H	E	A	D		C	L	E	A	N	I	N	G		P	R	O	C

CALIBRATE SENSORS

P	R	E	S	S		E	N	T	E	R		F	O	R						
C	A	L	I	B	R	A	T	I	N	G		S	E	N	S	O	R	S		

LIFE COUNTS / VERSIONS

P	R	E	S	S		E	N	T	E	R		F	O	R						
L	I	F	E		C	O	U	N	T	S	/	V	E	R	S	I	O	N	S	

SETUP SCREEN

P	R	E	S	S		E	N	T	E	R		F	O	R						
F	E	A	T	U	R	E		S	E	T	U	P								

VERIFIER SETUP SCREEN

P	R	E	S	S		E	N	T	E	R		F	O	R						
V	E	R	I	F	I	E	R		S	E	T	U	P							

Front Panel Mode Descriptions

There are six (6) main mode levels, which are selected and modified using the following function keys:

EXIT   MODE   <YES   NO>   ENTER

↑   ↓   ←○   ⊘→   ↵
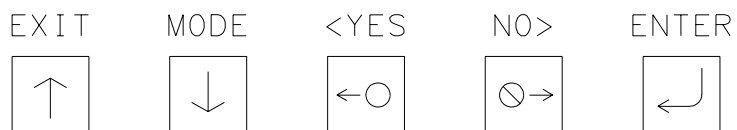
Use the MODE ↓ key to move through the main mode screens shown below:

PRESS ENTER FOR

PRINT / CUT POSITIONS

PRESS ENTER FOR

PRINT HEAD CLEANING PROC

PRESS ENTER FOR

CALIBRATING SENSORS

PRESS ENTER FOR

LIFE COUNTS / VERSIONS

PRESS ENTER FOR

FEATURES SETUP

PRESS ENTER FOR

VERIFIER SETUP

Use the EXIT ↑ to move back to the HOME screens.

PRINT / CUT POSITIONS

P	R	E	S	S		E	N	T	E	R		F	O	R							
P	R	I	N	T	/	C	U	T		P	O	S	I	T	I	O	N				

This screen follows the "BATCH ID / BATCH QTY" screen if there are batches to be printed, otherwise it follows the "READY FOR BATCHES / MODEL" home screen.

Pressing ENTER will take the user to the "PRINT / CUT POSITIONS" screens. Pressing the MODE / Down Arrow key will take the user to the "PRINTHEAD CLEANING PROC" screen. Pressing the EXIT / Up Arrow key will take the user back to the "HOME" screen.

P	R	E	S	S		E	N	T	E	R		T	O								
P	R	I	N	T		C	H	E	C	K	O	U	T		F	O	R	M	A	T	

This screen is the first screen under "PRINT / CUT POSITIONS". Pressing ENTER will cause the printer to print the checkout format. The printer will setup to do the checkout format and start printing. The front panel will remain on this screen so the user can use the MODE / Down Arrow key to get to the printer adjustments. When the EXIT / Up Arrow key is pressed the printer stops printing the checkout format and goes back to what it was doing before the checkout was requested.

Pressing the MODE / Down Arrow key will take the user to the "PRINT POSITION STATION 1" screen. Pressing the EXIT / Up Arrow key will take the user back to the "HOME" screen.

P	R	I	N	T		P	O	S	I	T	I	O	N		S	T	A	T	I	O	N		1
V	A	L	U	E	:	±	X	X			N	E	W		V	A	L	U	E	:	±	Y	Y

This screen follows the "PRINT CHECKOUT FORMAT" screen. This screen allows the print position of station 1 to be adjusted in the feed direction.

The <YES / NO> buttons are used to change the new print position value. The value is displayed in a positive/negative format. The value ranges for XX and YY can be from a -99 to a +99. Pressing ENTER will change the VALUE to the NEW VALUE. Using the module view a more positive number will move the print of station 1 to the left while a more negative number will move it to the right.

NOTE: Print Position Station 1 is opposite all the other adjustments.

Pressing the MODE / Down Arrow key will take the user to the "PRINT POSITION STATION 2" screen. Pressing the EXIT / Up Arrow key will take the user back to the "HOME" screen.

P	R	I	N	T		P	O	S	I	T	I	O	N		S	T	A	T	I	O	N		2	
V	A	L	U	E	:	±	X	X			N	E	W		V	A	L	U	E	:	±	Y	Y	

This screen follows the "PRINT POSITION STATION 1" screen. This screen allows the print position of station 2 to be adjusted in the feed direction.

The <YES / NO> buttons are used to change the new print position value. The value is displayed in a positive / negative format. The value ranges for XX and YY can be from a -99 to a +99. Pressing ENTER will change the VALUE to the NEW VALUE. A more positive number will move the print of station 2 to the right while a more negative number will it to the left.

Pressing the MODE / Down Arrow key will take the user to the "PRINT OFFSET STATION 1" screen. Pressing the EXIT / Up Arrow key will take the user back to the "HOME" screen.

P	R	I	N	T		O	F	F	S	E	T		S	T	A	T	I	O	N		1		
V	A	L	U	E	:	±	X	X			N	E	W		V	A	L	U	E	:	±	Y	Y

This screen follows the "PRINT POSITION STATION 2" screen. This screen allows the offset print position of station 1 to be adjusted.

The <YES / NO> buttons are used to change the new print offset value. The value is displayed in a positive / negative format. The value ranges for XX and YY can be from a -20 to a +20. Pressing ENTER will change the VALUE to the NEW VALUE. A more positive number will move the outboard half of the image printed by station 1 to the right while a more negative number will move it to the left.

Pressing the MODE / Down Arrow key will take the user to the "PRINT OFFSET STATION 2" screen. Pressing the EXIT / Up Arrow key will take the user back to the "HOME" screen.

P	R	I	N	T		O	F	F	S	E	T		S	T	A	T	I	O	N		2		
V	A	L	U	E	:	±	X	X			N	E	W		V	A	L	U	E	:	±	Y	Y

This screen follows the "PRINT OFFSET STATION 1" screen. This screen allows the offset print position of station 2 to be adjusted.

The <YES / NO> buttons are used to change the new print offset value. The value is displayed in a positive / negative format. The value ranges for XX and YY can be from a -20 to a +20. Pressing ENTER will change the VALUE to the NEW VALUE. A more positive number will move the outboard half of the image printed by station 2 to the right while a more negative number will move it to the left.

Pressing the MODE / Down Arrow key will take the user to the "CHANGE CUT POSITION" screen. Pressing the EXIT / Up Arrow key will take the user back to the "HOME" screen.

C	H	A	N	G	E		C	U	T		P	O	S	I	T	I	O	N				
V	A	L	U	E	:	±	X	X			N	E	W		V	A	L	U	E	:	±	Y	Y

This screen follows the "PRINT OFFSET STATION 2" screen. This screen allows the cut position to be adjusted on sense mark formats. The <YES / NO> buttons are used to change the new cut value. The value is displayed in a positive / negative format. The value ranges for XX and YY can be from a -10 to a +10. Pressing ENTER will change the VALUE to the NEW VALUE. On sense mark format a more positive number will move the cut to the right while a more negative number will move the cut to the left.

Pressing the MODE / Down Arrow key will take the user to the "STATION 2 DOT SHIFT" screen. Pressing the EXIT / Up Arrow key will take the user back to the "HOME" screen.

S	T	A	T	I	O	N		2		D	O	T		S	H	I	F	T				
V	A	L	U	E	:	±	X	X			N	E	W		V	A	L	U	E	:	±	Y	Y

This screen follows the "CHANGE CUT POSITION" screen. This screen allows the print position of station 2 to be adjusted in the web direction.

The <YES / NO> buttons are used to change the new dot shift value. The value is displayed in a positive / negative format. The value ranges for XX and YY can be from a -16 to a +16. Pressing ENTER will change the VALUE to the NEW VALUE. A more positive number will move the print of station 2 to the front of the machine while a more negative number will it to the back of the machine.

Pressing the MODE / Down Arrow key will take the user back to the "PRINT CHECKOUT FORMAT" screen. Pressing the EXIT / Up Arrow key will take the user back to the "HOME" screen.

PRINTHEAD CLEANING PROCEDURES

P	R	E	S	S		E	N	T	E	R		F	O	R								
P	R	I	N	T	H	E	A	D		C	L	E	A	N	I	N	G		P	R	O	C	.

This screen follows the "PRINT / CUT POSITIONS" screen.

Pressing ENTER will take the user to the "PRINTHEAD CLEANING PROCEDURES" screens. Pressing the MODE / Down Arrow key will take the user to the "CALIBRATING SENSORS" screen. Pressing the EXIT / Up Arrow key will take the user back to the "HOME" screen.

P	R	E	S	S		E	N	T	E	R		F	O	R							
C	L	E	A	N	I	N	G		S	T	A	T	I	O	N		1				

This screen is the first screen under "PRINTHEAD CLEANING PROC." screen. This screen allows the user to initiate a cleaning cycle for station 1. Pressing ENTER will initiate a cleaning procedure on station 1 based on it's default cleaning level setting.

Pressing the MODE / Down Arrow key will take the user to the "CLEANING STATION 2" screen. Pressing the EXIT / Up Arrow key will take the user back to the "HOME" screen.

P	R	E	S	S		E	N	T	E	R		F	O	R					
C	L	E	A	N	I	N	G		S	T	A	T	I	O	N		2		

This screen follows the "CLEANING STATION 1" screen. This screen allows the user to initiate a cleaning cycle for station 2. Pressing ENTER will initiate a cleaning procedure on station 2 based on it's default cleaning level setting.

Pressing the MODE / Down Arrow key will take the user to the "CHANGE DEFAULT CLEANING LEVEL STATION 1" screen. Pressing the EXIT / Up Arrow key will take the user back to the "HOME" screen.

C	H	A	N	G	E		D	E	F	A	U	L	T		C	L	E	A	N	I	N	G	
L	E	V	E	L		F	O	R		S	T	A	T	I	O	N		1	:		X	X	

This screen follows the "CLEANING STATION 2" screen. This screen allows the user to adjust the default cleaning level for station 1.

The ENTER button is used to change the cleaning level value. The value is displayed in a positive format. The value for XX can be either 3 or 4. Pressing ENTER will toggle between the two values. The higher the value - the more extensive the cleaning procedure will become.

Pressing the MODE / Down Arrow key will take the user to the "CHANGE DEFAULT CLEANING LEVEL STATION 2" screen. Pressing the EXIT / Up Arrow key will take the user back to the "HOME" screen.

C	H	A	N	G	E		D	E	F	A	U	L	T		C	L	E	A	N	I	N	G	
L	E	V	E	L		F	O	R		S	T	A	T	I	O	N		2	:		Y	Y	

This screen follows the "CHANGE DEFAULT CLEANING LEVEL STATION 1" screen. This screen allows the user to adjust the default cleaning level for station 2.

The ENTER button is used to change the cleaning level value. The value is displayed in a positive format. The value for XX can be either 3 or 4. Pressing ENTER will toggle between the two values. The higher the value - the more extensive the cleaning procedure will become.

Pressing the MODE/Down Arrow key will take the user to the "STATION ACTIVATION" screen. Pressing the EXIT / Up Arrow key will take the user back to the "HOME" screen.

S	T	A	T	I	O	N		A	C	T	I	V	A	T	I	O	N		X	X			
C	L	O	S	E		H	E	A	D	S			P	R	E	S	S		E	N	T	E	R

This screen follows the "CHANGE DEFAULT CLEANING LEVEL STATION 2" screen. This screen allows the user to enable or disable the print stations.

The ENTER button is used to change the value. The value is displayed in a positive format. The values are 1, 2, or 12. Pressing ENTER will continuously cycle though the values.

Pressing the MODE / Down Arrow key will take the user back to the "CLEAN STATION 1" screen. Pressing the EXIT / Up Arrow key will take the user back to the "HOME" screen.

CALIBRATE SENSORS

P	R	E	S	S		E	N	T	E	R		T	O						
C	A	L	I	B	R	A	T	E		S	E	N	S	O	R	S			

This screen follows the "PRINT HEAD CLEANING PROC" screen.

Pressing ENTER will take the user to the "CALIBRATE SENSORS" screens. Pressing the MODE / Down Arrow key will take the user to the "LIFE COUNTS/VERSIONS" screen. Pressing the EXIT / Up Arrow key will take the user back to the "HOME" screen.

H	O	L	E	/	S	L	O	T		I	N		S	E	N	S	O	R			
V	A	L	U	E	:	0	0	0		N	E	W		V	A	L	U	E	:	0	0	0

This screen is the first screen under "CALIBRATING SENSORS" screen. Place the fabric hole/slot sense mark under the sensor. Slowly move the fabric under the sensor until the NEW VALUE reading is its lowest value then press 'Enter'.

Pressing the MODE / Down Arrow key will take the user to the "HOLE/SLOT NOT IN SENSOR" screen. Pressing the EXIT / Up Arrow key will take the user back to the "HOME" screen.

H	O	L	E	/	S	L	O	T		N	O	T		I	N		S	E	N	S	O	R	
V	A	L	U	E	:	0	0	0		N	E	W		V	A	L	U	E	:	0	0	0	

This screen follows the "HOLE/SLOT IN SENSOR" screen. Place the fabric under the sensor so that it blocks the sensor and when NEW VALUE is at its highest value press 'Enter'.

Pressing the MODE / Down Arrow key will take the user to the "TOP REFL OVER MARK" screen. Pressing the EXIT / Up Arrow key will take the user back to the "HOME" screen.

T	O	P		R	E	F	L		O	V	E	R		M	A	R	K				
V	A	L	U	E	:	0	0	0		N	E	W		V	A	L	U	E	:	0	0	0

This screen follows the "HOLE / SLOT NOT IN SENSOR" screen. Place the fabric under the top reflective sensor so that the reflective mark is under the sensor and when NEW VALUE is at the highest value press 'Enter'.

Pressing the MODE / Down Arrow key will take the user to the "TOP REFL NOT OVER MARK" screen. Pressing the EXIT / Up Arrow key will take the user back to the "HOME" screen.

T	O	P		R	E	F	L		N	O	T		O	V	E	R		M	A	R	K		
V	A	L	U	E	:	0	0	0		N	E	W		V	A	L	U	E	:	0	0	0	

This screen follows the "TOP REFL OVER MARK" screen. Place the fabric under the top reflective sensor so that the fabric is under the sensor but the reflective mark is not under the sensor and when NEW VALUE is at the lowest value press 'Enter'.

Pressing the MODE / Down Arrow key will take the user to the "BOT REFL OVER MARK" screen. Pressing the EXIT / Up Arrow key will take the user back to the "HOME" screen.

B	O	T		R	E	F	L		O	V	E	R		M	A	R	K				
V	A	L	U	E	:	0	0	0		N	E	W		V	A	L	U	E	:	0	0	0

This screen follows the "TOP REFL NOT OVER MARK" screen. Place the fabric over the bottom reflective sensor so that the reflective mark is over the sensor and when NEW VALUE is at the highest value press 'Enter'.

Pressing the MODE / Down Arrow key will take the user to the "BOT REFL NOT OVER MARK" screen. Pressing the EXIT / Up Arrow key will take the user back to the "HOME" screen.

B	O	T		R	E	F	L		N	O	T		O	V	E	R		M	A	R	K		
V	A	L	U	E	:	0	0	0		N	E	W		V	A	L	U	E	:	0	0	0

This screen follows the "BOT REFL OVER MARK" screen. Place the fabric over the bottom reflective sensor so that the fabric is over the sensor but the reflective mark is not over the sensor and when NEW VALUE is at the lowest value press 'Enter'.

Pressing the MODE / Down Arrow key will take the user to the "STACKER BLOCKED" screen. Pressing the EXIT / Up Arrow key will take the user back to the "HOME" screen.

S	T	A	C	K	E	R		B	L	O	C	K	E	D							
V	A	L	U	E	:	0	0	0		N	E	W		V	A	L	U	E	:	0	0	0

This screen follows the "BOT REFL NOT OVER MARK" screen. Place the fabric in the stacker jam sensor so that the fabric is within the sensor site path and when NEW VALUE is at the highest value press 'Enter'.

Pressing the MODE / Down Arrow key will take the user to the "STACKER NOT BLOCKED" screen. Pressing the EXIT / Up Arrow key will take the user back to the "HOME" screen.

S	T	A	C	K	E	R		N	O	T		B	L	O	C	K	E	D			
V	A	L	U	E	:	0	0	0		N	E	W		V	A	L	U	E	:	0	0	0

This screen follows the "STACKER BLOCKED" screen. Remove any fabric from the stacker jam sensor so that no fabric is within the sensor site path and when NEW VALUE is at the lowest value press 'Enter'.

Pressing the MODE / Down Arrow key will take the user to the "STOCK OUT BLOCKED" screen. Pressing the EXIT / Up Arrow key will take the user back to the "HOME" screen.

S	T	O	C	K		O	U	T		B	L	O	C	K	E	D					
V	A	L	U	E	:	0	0	0		N	E	W		V	A	L	U	E	:	0	0	0

This screen follows the "STACKER NOT BLOCKED" screen. Place the fabric in the stock out sensor so that the fabric is within the sensor site path and when NEW VALUE is at the highest value press 'Enter'.

Pressing the MODE / Down Arrow key will take the user to the "STOCK OUT NOT BLOCKED" screen. Pressing the EXIT / Up Arrow key will take the user back to the "HOME" screen.

S	T	O	C	K		O	U	T		N	O	T		B	L	O	C	K	E	D		
V	A	L	U	E	:	0	0	0		N	E	W		V	A	L	U	E	:	0	0	0

This screen follows the "STOCK OUT BLOCKED" screen. Reposition the fabric so that a splice is within the sensor site path and when NEW VALUE is at the lowest value press 'Enter'.

Pressing the MODE / Down Arrow key will take the user back to the "HOLE / SLOT IN SENSOR" screen. Pressing the EXIT / Up Arrow key will take the user back to the "HOME" screen

LIFE COUNTS/VERSIONS

P	R	E	S	S		E	N	T	E	R		F	O	R						
L	I	F	E		C	O	U	N	T	S	/	V	E	R	S	I	O	N	S	

This screen follows the "CALIBRATE SENSORS" screen. Pressing ENTER will take the user to the "LIFE COUNTS/VERSIONS" screens.

Pressing the MODE / Down Arrow key will take the user to the "FEATURE SETUP" screen. Pressing the EXIT / Up Arrow key will take the user back to the "HOME" screen.

L	A	B	E	L		C	O	U	N	T	E	R	:	0	0	0	0	0		
P	R	E	S	S		E	N	T	E	R		T	O		R	E	S	E	T	

This screen is the first screen under "LIFE COUNTS / VERSIONS". This screen shows total labels produced since the last counter reset. Pressing the ENTER key will reset the counter to zero.

Pressing the MODE / Down Arrow key will take the user to the "TOTAL LABLES PRODUCED" screen. Pressing the EXIT / Up Arrow key will take the user back to the "HOME" screen.

T	O	T	A	L		L	A	B	E	L	S		P	R	O	D	U	C	E	D		
0	0	0	0	0	0	0	0	0	0	0												

This screen follows the "LABEL COUNTER" screen. This screen displays the total labels produced since the printer was built. This counter is NOT resettable by the user.

Pressing the MODE / Down Arrow key will take the user to the "TOTAL INCHES OF STOCK" screen. Pressing the EXIT / Up Arrow key will take the user back to the "HOME" screen.

T	O	T	A	L		I	N	C	H	E	S		O	F		S	T	O	C	K		
0	0	0	0	0	0	0	0	0	0	0												

This screen follows the "TOTAL LABELS PRODUCED" screen. This screen displays the total inches since the printer was built. This value is NOT resettable by the user.

Pressing the MODE / Down Arrow key will take the user to the "CONTROLLER VERSION" screen. Pressing the EXIT / Up Arrow key will take the user back to the HOME screen.

C	O	N	T	R	O	L	L	E	R		V	E	R	S	I	O	N					
X	X	X	X	X																		

This screen follows the "TOTAL INCHES OF STOCK" screen. This screen shows the operating system version for the controller (TCB). Pressing the MODE / Down Arrow key will take the user to the "IMAGER VERSION" screen. Pressing the EXIT / Up Arrow key will take the user back to the HOME screen.

I	M	A	G	E	R		V	E	R	S	I	O	N									
X	X	.	X	X																		

This screen follows the "CONTROLLER VERSION" screen. This screen shows operating system version for the imager (AT).

Pressing the MODE / Down Arrow key will take the user back to the "LABEL COUNTER" screen.

Pressing the EXIT / Up Arrow key will take the user back to the HOME screen.

FEATURE SETUP SCREEN

P	R	E	S	S		E	N	T	E	R		F	O	R								
F	E	A	T	U	R	E		S	E	T	U	P										

This screen follows the "LIFE COUNT/VERSIONS".

Pressing ENTER will take the user to the "FEATURE SETUP" screens. Pressing the MODE / Down Arrow key will take the user to the "VERIFER SETUP" screen. Pressing the EXIT / Up Arrow key will take the user back to the "HOME" screen.

C	U	T	T	E	R		I	S		E	N	A	B	L	E	D						
P	R	E	S	S		E	N	T	E	R		T	O		D	I	S	A	B	L	E	

<div align="center">OR</div>

C	U	T	T	E	R		I	S		D	I	S	A	B	L	E	D					
P	R	E	S	S		E	N	T	E	R		T	O		E	N	A	B	L	E		

This screen is the first screen of the "FEATURE SETUP". This screen allows the cutter to be enabled or disabled. Pressing ENTER will toggle from ENABLED to DISABLED and vice versa. Pressing the MODE / Down Arrow key will take the user to the "EMULATION MODE" screen. Pressing the EXIT / Up Arrow key will take the user back to the "HOME" screen.

E	M	U	L	A	T	I	O	N		M	O	D	E	:	N	O	N	E				
N	E	W		E	M	U	L	A	T	I	O	N		M	O	D	E	:	N	O	N	E

This screen follows the "CUTTER ENABLE / DISABLE" screen. This screen allows the EMULATION MODE to be changed. Use the <YES and NO> keys to move between NONE, 630, and 650 modes. Pressing ENTER will update the emulation mode with the selection after new emulation mode. Pressing the MODE / Down Arrow key will take the user to the "LANGUAGE" screen. Pressing the EXIT / Up Arrow key will take the user back to the "HOME" screen.

				L	A	N	G	U	A	G	E	:		X	X	X	X	X	X			
N	E	W		L	A	N	G	U	A	G	E	:		Y	Y	Y	Y	Y	Y			

This screen follows the "EMULATION MODE" screen. This screen allows the front panel display language to be changed. Use the <YES and NO> keys to move between the supported languages on the printer. Any number of front panel languages can be stored on the optional PCMCIA card (dependent on available space). If no additional languages other than the default are available on the printer XXXXXX and YYYYYY will be the same value. Pressing ENTER will update the display language with the selection. Pressing the MODE / Down Arrow key will take the user to the "PROTOCOL" screen. Pressing the EXIT / Up Arrow key will take the user back to the "HOME" screen.

Warning: Mis-matched communication protocols may result in the inability to communicate with the printer and/or loss of data.

P	R	O	T	O	C	O	L	:		X	O	N	/	X	O	F	F					
N	E	W		P	R	O	T	O	C	O	L	:		X	O	N	/	X	O	F	F	

This screen follows the "LANGUAGE" screen. This screen allows the communications protocol to be changed between the supported types. Use the <YES and NO> keys to move between the supported protocols – RTS / CTS is considered hardware handshaking and XON / XOFF is considered to be software. Pressing ENTER will update the communications protocol with the selection. Pressing the MODE / Down Arrow key will take the user to the "BAUD RATE" screen. Pressing the EXIT / Up Arrow key will take the user back to the "HOME" screen.

				B	A	U	D		R	A	T	E	:	X	X	X	X	X	X			
N	E	W		B	A	U	D		R	A	T	E	:	Y	Y	Y	Y	Y	Y			

This screen follows the "PROTOCOL" screen. This screen allows the serial communications speed to be changed. Use the <YES and NO> keys to move between the supported speeds – typical is 9600 dependent on serial communication cable length. Pressing ENTER will update the communications speed with the selection. Pressing the MODE / Down Arrow key will take the user to the "CHANGE DATE AND TIME" screen. Pressing the EXIT / Up Arrow key will take the user back to the "HOME" screen.

C	H	A	N	G	E		D	A	T	E		A	N	D		T	I	M	E			
M	M	/	D	D	/	Y	Y			H	H	:	M	M		X	M					

This screen follows the "BAUD RATE" screen. This screen allows the machine date and time stamp to be changed / set. Use the <YES and NO> keys to change the flashing field. Pressing ENTER will update the present field and move to the cursor to the next. Pressing the MODE / Down Arrow key will take the user back to the "Cutter Enabled / Disabled" screen. Pressing the EXIT / Up Arrow key will take the user back to the "HOME" screen.

VERIFIER SETUP

P	R	E	S	S		E	N	T	E	R		F	O	R					
V	E	R	I	F	I	E	R		S	E	T	U	P						

This screen follows the "FEATURE SETUP" screen.

Pressing ENTER will take the user to the "VERIFIER SETUP" screens. Pressing the MODE / Down Arrow key will take the user back to the "PRINT / CUT POSITIONS" screen. Pressing the EXIT / Up Arrow key will take the user back to the "HOME" screen.

P	R	E	S	S		E	N	T	E	R		T	O						
P	R	I	N	T		V	E	R	I	F	I	E	R		H	I	S	T	O	R	Y

This screen is the first screen under "VERIFIER SETUP". Pressing ENTER will cause the printer to print a verifier history report containing bar code information for all the problem scans since the scan memory was last cleared.

Pressing the MODE / Down Arrow key will take the user to the "PRINT VERIFIER SETUP" screen. Pressing the EXIT / Up Arrow key will take the user back to the "HOME" screen.

P	R	E	S	S		E	N	T	E	R		T	O						
P	R	I	N	T		V	E	R	I	F	I	E	R		S	E	T	U	P

This screen follows the "PRINT VERIFIER HISITORY" screen. Pressing ENTER will cause the printer to print a report containing the present verifier setup.

Pressing the MODE / Down Arrow key will take the user to the "CLEAR SCAN HISTORY" screen. Pressing the EXIT / Up Arrow key will take the user back to the "HOME" screen.

P	R	E	S	S		E	N	T	E	R		T	O						
C	L	E	A	R		S	C	A	N		M	E	M	O	R	Y			

This screen follows the "PRINT VERIFIERP SETUP" screen. Pressing ENTER will clear the verifier scan memory.

Pressing the MODE / Down Arrow key will take the user to the "VERIFIER ENABLE" screen. Pressing the EXIT / Up Arrow key will take the user back to the "HOME" screen.

V	E	R	I	F	I	E	R		I	S		E	N	A	B	L	E	D	
P	R	E	S	S		E	N	T	E	R		T	O		D	I	S	A	B	L	E

OR

V	E	R	I	F	I	E	R		I	S		D	I	S	A	B	L	E	
P	R	E	S	S		E	N	T	E	R		T	O		E	N	A	B	L	E

This screen follows the "CLEAR SCAN HISTORY" screen. This screen allows the verification process to be enabled or disabled. Pressing ENTER will toggle from ENABLED to DISABLED and vice versa.

Pressing the MODE / Down Arrow key will take the user back to the "PRINT VERIFIER HISTORY" screen. Pressing the EXIT / Up Arrow key will take the user back to the "HOME" screen.

Maintenance

Print Module Handling

Warning

Print heads contained in the print modules can be damaged easily, and are subject to premature failure if not properly handled. Careful handling must be exercised so as not to damage the nozzle plate. Please follow the procedures carefully to help ensure print module life and print quality. Because print modules may be damaged through a number of ways, Paxar has developed the following recommendations;

Handling

ESD

Electro Static Discharge is very detrimental to print heads and PCBs. To avoid damaging the components of a print module follow these simple procedures:

- Do not touch any terminals extending from the print modules.

- Do not touch the print head nozzle plates.

- Store the print modules near the printer to reduce the distance traveled thereby reducing the risk of mechanical and electrical damage.

- Store the print modules in a low static environment.

- Store the print modules upright as ink spillage may occur otherwise.

Print Module Replacement / Height Adjustment
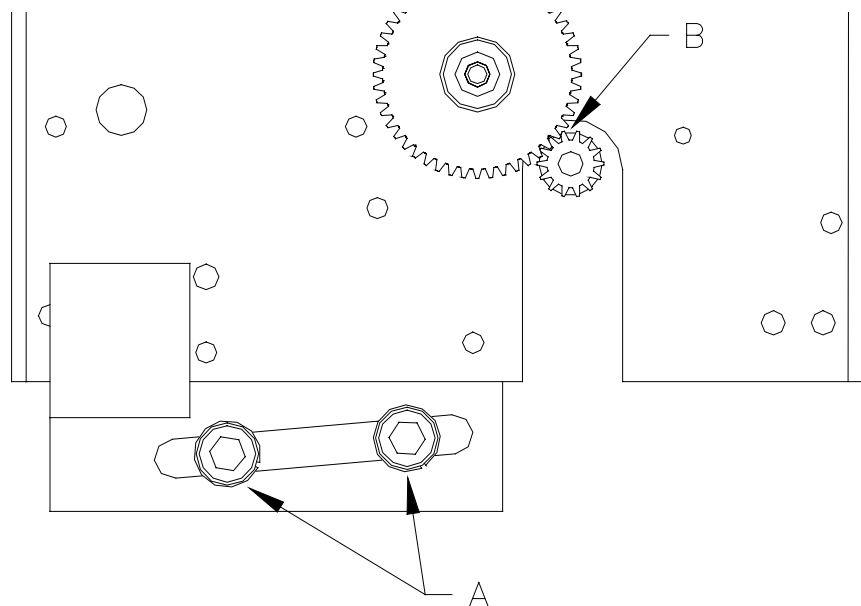
CAUTION: Turn off the power to the printer before removing or inserting the print module(s).

DUE TO THE TOLERANCES IN THE PRINT MODULES AND OF THE PRINT HEADS THEMSELVES, THE ENTIRE PRINT MODULE MUST BE REPLACED - ONCE A PRINT HEAD HAS REACHED ITS END OF LIFE.

1) Remove the ink cartridge from the printer in order to remove the print module.

2) Remove the print module by holding the release lever to the right and lifting the print module from the printer using its handle.

3) Insert a replacement print module in the reverse order.

4) If the replacement print module does not function properly by swinging the print heads out to the print position, the module stop block may need to be adjusted. These stop blocks are located beneath the print module under the front nose cover of the machine. With the power off remove the cover by removing four screws, two on either end of the cover then while holding the active unwind pinch roller down slide the cover forward far enough to unplug the front panel PCB. Once the PCB is unplugged - remove the cover and set aside. Adjust the print module stop block as needed to cause the pinion gears (B) to fully mesh without binding. This is achieved by loosening the two screws (A) securing the stop block to the frame and then moving the stop block right or left to cause it to raise or lower. Retighten the screws once the proper height is reached.

5) Replace the cover and perform the auto cleaning until the print heads are filled with ink and printing a full image.

6) As a final test of the print module installation, run a test pattern to check the print quality. You should observe an even grid of rectangles.

Print Head Swing Arm Stop Adjustment

If a gap or overlap appears in the image on the front or back of the label it may be necessary to adjust the print head swing arm stop screw A for that print station.

A
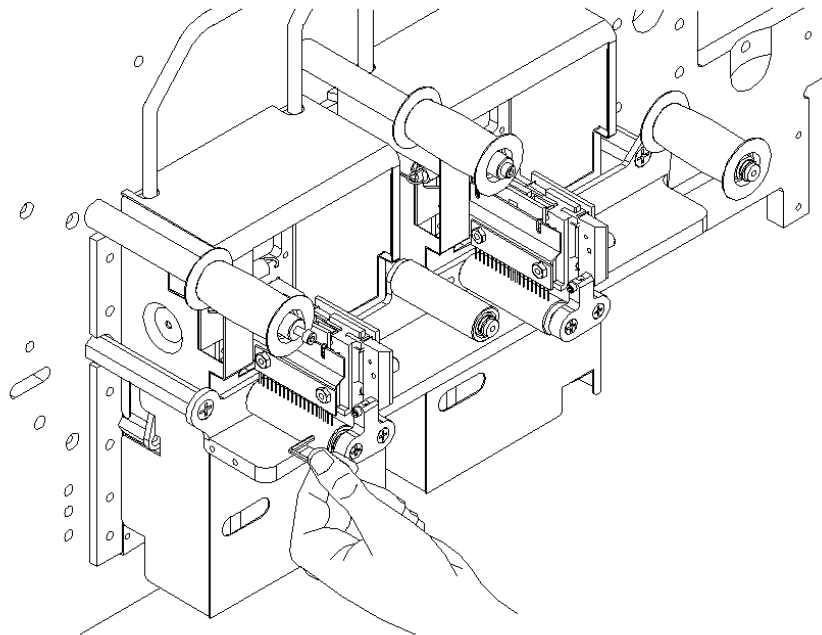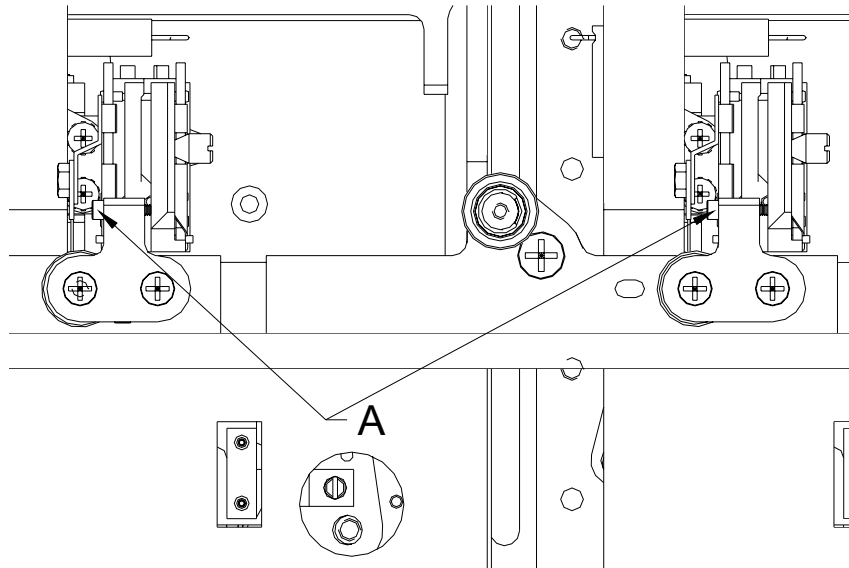
Using a 5/64" hex key - adjust screw A for the station needing the adjustment. Rotating the screw counter clockwise will decrease the overlap or increase the gap. Rotating it clockwise will decrease the gap or increase the overlap. Once adjusted properly - the image should appear square with no gap or overlap in the center.

Automated Print Head Cleaning

Before performing the Automated Print Head Cleaning procedure check the print head guard slots for any foreign objects that maybe deflecting or blocking the ink while in flight.

Automated Print Head Cleaning is performed on operator command from the front panel. From time to time it may become necessary to perform a cleaning routine to purge air or clear clogged print head nozzles.

There are two cleaning levels to choose from for each print station. Level 4 is more aggressive than level 3 cleaning and it will therefore take longer to perform and consume more ink. They are:

> **Level 3** - Med. Level Cleaning – 15 Cycles.
>
> **Level 4** - High Level Cleaning – 20 Cycles. (Also used for priming a new print module).
>
> **NOTE**: Each cycle moves 0.3mL of ink from the supply bag into the waste bag. A new supply bag has 110mL of ink. The machine will shut down the module pump when 30mL of ink has been pumped into an ink cartridge waste bag. The balance of new ink in that cartridge's supply bag can be consumed by printing.

See the Front Panel Menu map for the location of the default cleaning levels.

WHAT LEVEL TO USE:

- **Level 3** - is used when few nozzles will not print.

- **Level 4** - is used when level three will not clear all nozzles, and for new print modules, to purge the heads of analog / air and fill them with ink.

Once the default level of your choice has been selected for the print station to be cleaned return to its Clean Station screen and press the Enter button. The machine will then generate a vacuum on the print heads in that print station. This will cause ink to flow from the supply bag through the print heads and into the waste bag purging the print heads of air / foreign objects.

Manual Manifold Seal Cleaning

CAUTION: The print head nozzle plates are very delicate, use extreme care not to contact the print head nozzle plates while the print heads are in the print position. Use nothing other than foam tips with minimal pressure while cleaning the manifold seals.

From time to time depending on the amount of dust and debris in the printing environment the manifold seals may need to be cleaned by wiping. This will maintain the module's ability to form a seal between the print heads and the manifold. Use the following procedure to position the print module swing arms to the print position for cleaning purposes, and then back to the parked position when done.

Positioning Swing Arms for Seal Cleaning

- Go to the PRINT HEAD CLEANING PROC menu on the front panel and press "enter".

- From either of the first two sub menu items:

    (PRESS ENTER FOR / CLEANING STATION 1 (or 2)).

- Press the "YES (←)" button to swing the (active) print station(s) to the print position.

Cleaning

- Take a new foam tip swab (not a cotton swab) and clean any excess ink and debris from both of the manifold seals for each print module present as shown.

- Use a wiping action across the seals to avoid pushing any debris down into the manifold seal holes.
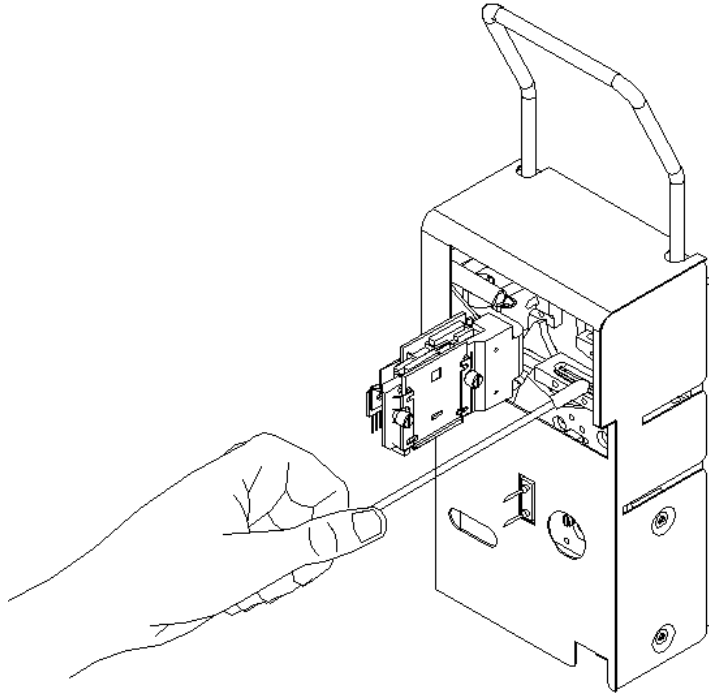
- When done cleaning, press the "NO ($\rightarrow$)" button to swing the (active) print station(s) to the home / park position.

General Machine Cleaning

The machine should be cleaned every eight hours of use or as needed. With the exception of the print heads and the optical sensors, the machine can be cleaned using an alcohol base solution. Simply apply a liberal amount of alcohol to a clean rag and wipe down the machine components starting at the unwind and ending at the stacker.

Printheads

Refer to the Automated Print Head and Manual Manifold Cleaning sections for cleaning the print heads.

NOTE: The print head **guards** can be cleaning with alcohol.

Optical Sensors

When an erroneous interlock condition occurs or print registration in reference to a sense mark becomes inconsistent or erratic - a sensor may need to be cleaned. Always use clean supplies when cleaning sensors. Never use anything abrasive on any of the sensors. Never use an alcohol based solution on any of the sensors. Dry air or a foam swab are the recommended supplies to use when cleaning a sensor. Either blow the dust / debris from the sensor using dry clean compressed air or wipe the sensor with a dry clean swab.

Knife Adjustment
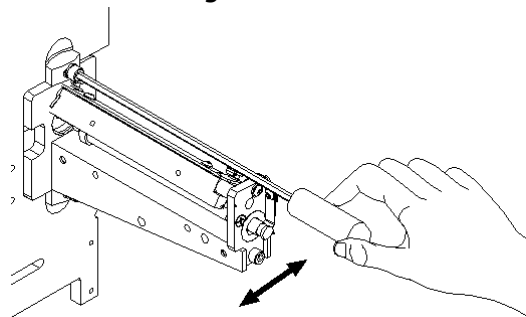
The knife has an adjustment to square the cut to the fabric. To make the adjustment, loosen the two cap screws, one on top of the knife and one below the knife, using the 3/16" ball driver. Move the knife in the direction desired to square the cut and retighten.

Feed Open Interlock Switch Adjustment

With the machine rear cover removed - while turning the feed lever knob back and forth you should heard the switch clicking. If not, the switch bale is adjusted by carefully bending it as needed.

Lubrication Procedure

General

The 545™ series printers are factory equipped with pre-lubricated bronze bearings that do not require lubrication. The one exception is the rub cams on either end of the rotary knife. Periodic cleaning of the printer and removal of dust will greatly enhance the length of the time the printer will function.

Cam - Lubrication Procedure

1) Clean any dust and residue from cams (using alcohol or other suitable solvent) as needed, or approximately every 100,000 cuts. Use any good quality general-purpose oil to keep the oilers from drying out. Excess oil may migrate onto the blades and cause jamming.

2) If lubrication is omitted, the knife will squeak and draw attention to required lubrication.

No other printer lubrication should be required in normal use.

Changing Stacker Belts
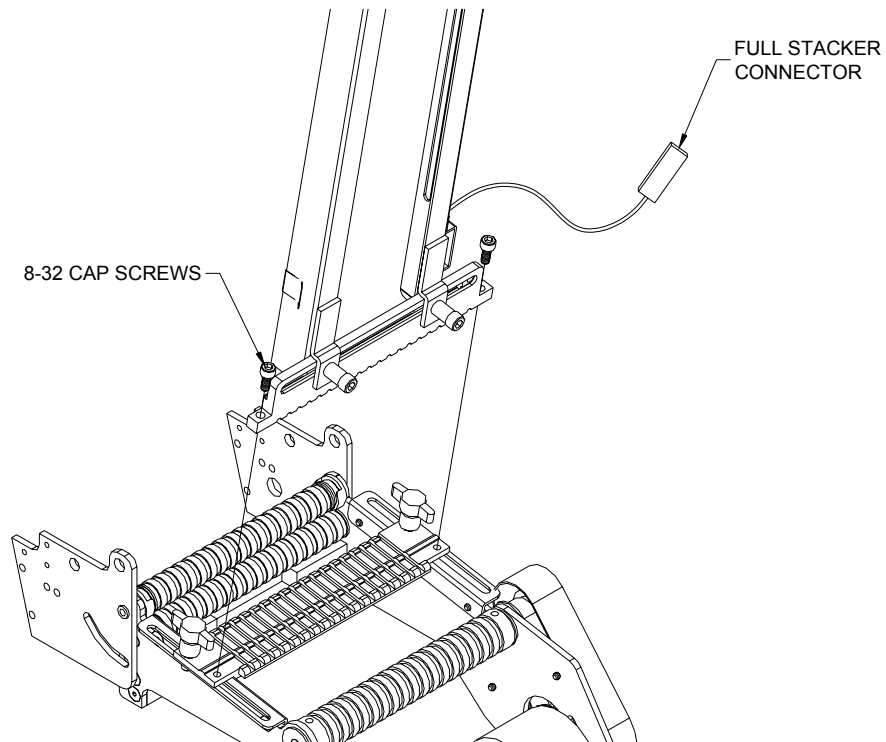
FIGURE 1

1. Remove stacker rail assembly by removing full stacker connector and (2) 8-32 cap screws from stacker mounting plate. (See figure 1)
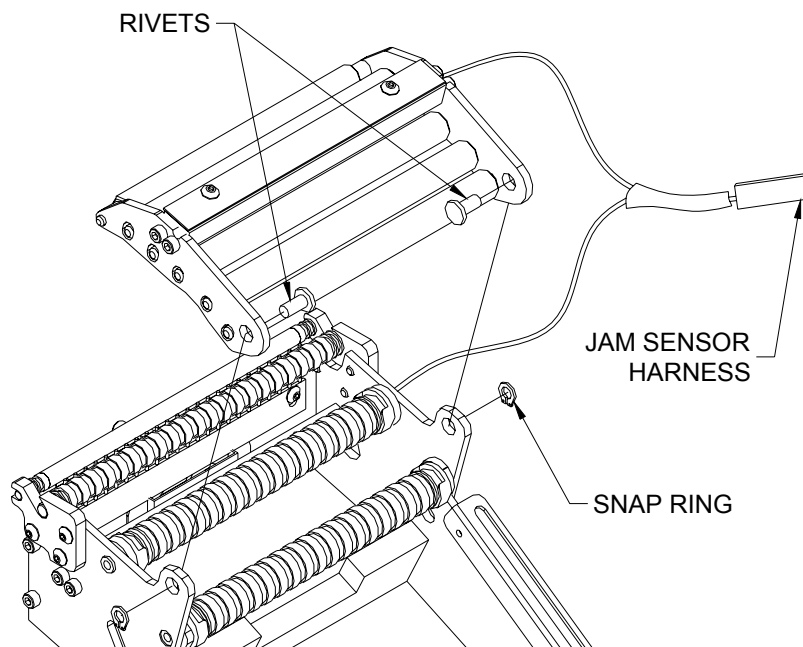
FIGURE 2

2. Remove upper conveyor roller assembly by removing jam sensor harness connector, snap-rings and rivets.
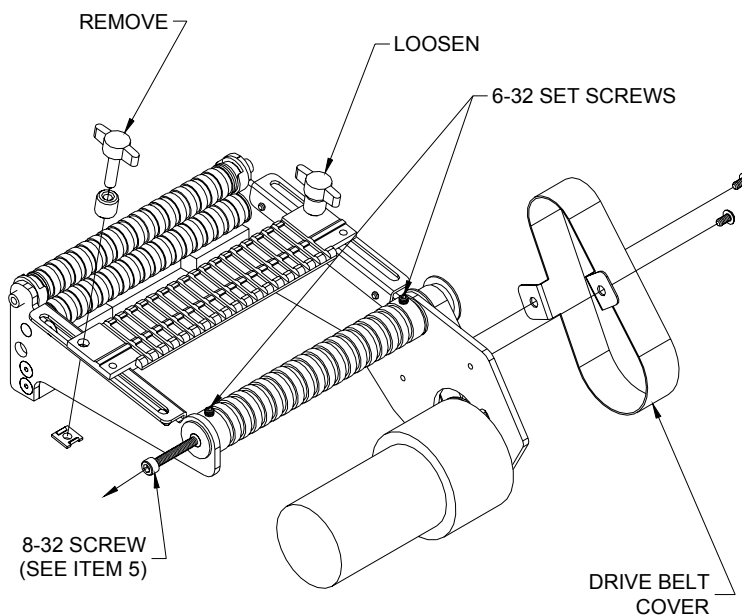
FIGURE 3

3. Remove the drive belt cover.

4. Loosen 6-32 set screws in ends of main drive roller. (See figure 3)

5. Insert an 8-32 screw into the threaded hole in the front side of the roller pin and remove the pin. (See figure 3)

6. Remove the thumbscrew on the front side of the stacker rail base and let the square nut on the underside fall out. Loosen the thumbscrew on the far side to allow slack for the belts to slide on. (See figure 3)
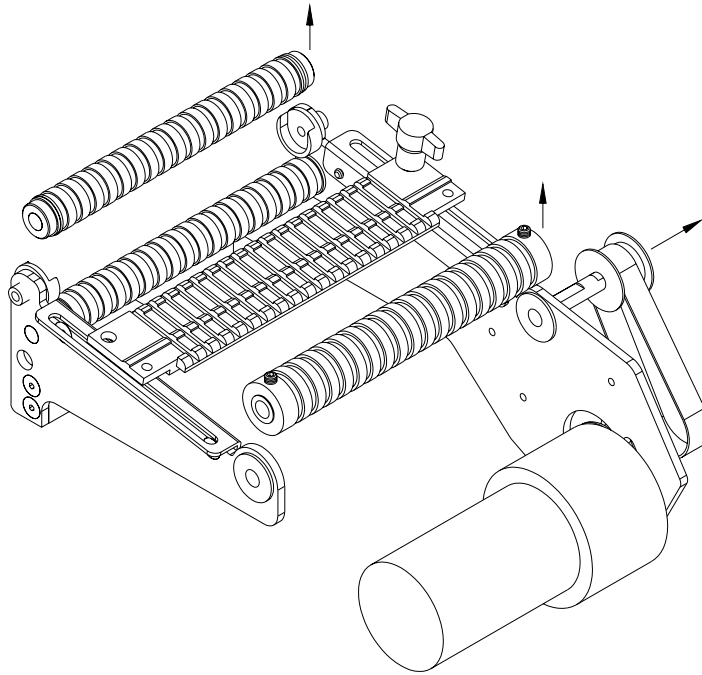
FIGURE 4

7. Pull the drive away from the frame enough to allow the roller / belts to be lifted out of the frame. This will allow removal of the center roller / bearing assembly from the frame and provide "slack" sufficient to remove front roller from bearing blocks. (It is not necessary to loosen or remove the drive pulley to accomplish this step.) (See figure 4)

SMALL DUAL
DRIVE BELTS
(SEE ITEM 8)
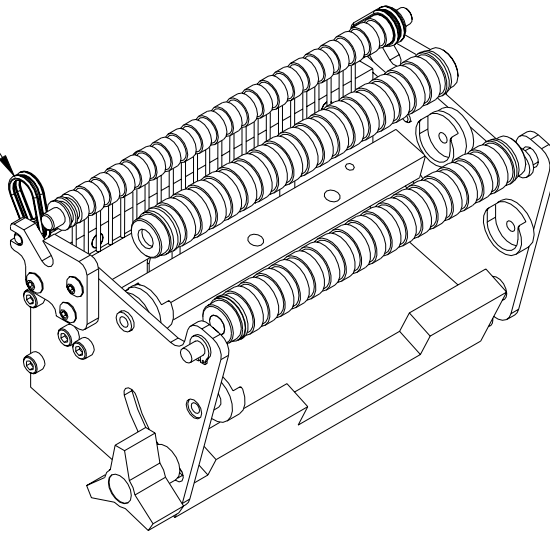
FIGURE 5

8. Remove small dual drive belts from one side of front roller to allow assembly of
   new belts.

9. To re-assemble, reverse procedure above.

Electrical Trouble Shooting

Power Up / Sign On / Communications

Problem	Probable Cause	Corrective Action
Printer fails to power up.	1) Incorrect power amplitude.	1) Confirm that the AC entry is configured for the line voltage intended to be applied to the printer. Failure to do so can damage the printer's internal power supplies.
	2) Lack of power to printer.	1) Check that both ends of the power cord are plugged in securely.
		2) Confirm that the outlet the printer is plugged into has power.
	3) Missing or blown fuse(s)	1) Check that the fuse(s) located inside the AC entry are present and intact. Replace as needed.
	4) Unconnected cable / connector inside printer.	1) Power off and remove the power cord from the AC entry. Remove the back cover and inspect the cables and connectors to and from the power supplies.
	5) Thermal Control Board unplugged from the Mother Board	1) Power off and remove the power cord from the AC entry. Remove the back cover and reseat the Thermal Control Board.
Front panel displays no text or nothing at all.	1) Front panel cable unplugged.	1) Power off and remove the power cord from the AC entry. Remove the back cover and inspect the cable and connectors to and from the front panel.

Problem	Probable Cause	Corrective Action
Front panel does not complete diagnostics test 2.	1) One or more PC board(s) unplugged from the Mother Board.	1) Power off and remove the power cord from the AC entry. Remove the back cover and reseat the offending board.
	2) PCMCIA cartridge not inserted correctly in PCMCIA slot.	1) Insert a PCMCIA cartridge with the arrow up and towards the front of the printer so that the ejector button pops out.
Printer does not receive batches.	1) Serial communications cable loose or unconnected.	1) Check and secure both ends of the serial cable with the thumbscrews.
	2) Printer not powered on or has not completed diagnostics tests.	1) Power printer on and wait until front panel displays "Ready for batches". Re-download data.
	3) Data sent to wrong printer.	1) In PcMate change to the printer that the data is intended to be sent.
	4) Configuration incorrect in PcMate.	1) Reconfigure PcMate for Paxar PCL printer as per your PcMate manual.
	5) Batch Que data flow interrupted.	1) Purge all batches in batch Que. power cycle the printer and re-download.
	6) Faulty Thermal Control Board.	1) Replace Thermal Control Board.
	7) Jumpers not configured correctly.	1) Contact Paxar Service.

Fabric Advance

Problem	Probable Cause	Corrective Action
Fabric does not advance when the start button is depressed.	1) No batches to be printed.	1) Download batch (if batch downloaded uses the same format as a previously downloaded batch the printer with start automatically).
	2) An interlock condition exists.	1) Determine the number and type of interlock(s) by reading the front panel display. As each is corrected the number of errors will decrease (Example "Error 910 Feed Open" close feed).
	3) Feed roller(s) not gripping the fabric.	1) Clean the feed rollers in the active unwind and the feed module.
	4) Feed rollers bound.	1) With power off - check that all rollers turn freely.
	5) Fabric bound.	1) With the feed open and the pressure roller held open in the active unwind - check that the fabric will pull through the printer with little to no resistance.
	6) Feed motor(s) unplugged or faulty.	1) Check the feed motor cable(s) and or replace the active unwind or feed motor.
	7) Thermal Control Board unplugged or faulty.	1) Check Thermal Control Board / AT board connection and or replace Thermal Control Board.
	8) Finishing Interface Board unplugged or faulty.	1) Check Finishing Interface Board connections and or replace Finishing Interface Board.

Print

Problem	Probable Cause	Corrective Action
Printer advances fabric but does not print.	1) If sense mark format fabric registration sensor miss aligned.	1) Adjust sensor position so that the sensor light on the front panel flashes as a sense mark / hole passes under the sensor.
	2) Print station(s) inactive.	1) Using the front panel - activate the needed print station(s).
	3) Print module not fully engaged.	1) Remove the ink cartridge and reinsert the offending print module.
	4) Print module void of ink.	1) Perform a level 4 clean level to purge the print module of air and fill with ink.
	5) Print module cable unconnected or faulty.	1) Power off the printer and reinsert the offending connector or replace cable.
	6) Head Driver Board unplugged or faulty.	1) Check Head Driver Board / AT board connection and or replace Head Driver Board.
Printer stops after ever third label.	1) Fabric registration sensor miss aligned.	1) Adjust sensor position so that the sensor light on the front panel flashes as a sense mark / hole passes under the sensor.
	2) Fabric registration sensor uncalibrated.	1) Calibrate the sensor.
Print registration is off in the feed direction.	1) Printer incorrectly threaded.	1) Check and rethread the fabric as needed.
	2) Printer print position(s) are incorrect.	1) Enter the Print / Cut Positions Mode on the front panel and readjust the Print Position setting(s) as needed.
	3) Field(s) position incorrect in the format.	1) Using Formatter / PcMate Plus, check and readjust the field(s) position(s) as needed.
	4) Bound roller(s).	1) Check that all rollers turn freely on their shafts. If not – repair / replace.
Print registration is off in the web direction.	1) Printer incorrectly threaded.	1) Check and rethread the fabric as needed.
	2) Web guides incorrectly adjusted.	1) Check and adjust as needed.
	3) Unwind incorrectly adjusted.	1) Check and adjust as needed.
	4) Printer station 2 dot shift is incorrect.	1) Enter the Print / Cut Positions Mode on the front panel and readjust Station 2 Dot Shift setting as needed.
	5) Incorrect DIP switch settings on the Thermal Control Board.	1) Check and reset DIP switches as needed.

Problem	Probable Cause	Corrective Action
Voids in print image in the feed direction.	1) Nozzles clogged or void of ink.	1) Enter the Print Head Cleaning Mode and clean the print module.
	2) Print head swing arm stop misadjusted.	1) Adjust the swing arm stop position as needed to prevent any gap or overlap in the center of the image.
	3) Faulty print head.	1) After cleaning head and running the test pattern to confirm that a void still exists, replace the print module.
Printer continually stops with an erroneous interlock condition.	1) Sensor uncalibrated.	1) Determine which sensor and re-calibrate as needed.
	2) Sensor position misadjusted.	1) Determine which sensor and relocate accordingly.

Cut / Stack

Problem	Probable Cause	Corrective Action
Printer fails to cut labels (the rotary knife does not rotate).	1) The cut is disabled in the Feature Setup mode.	1) Enter the Feature Setup Mode on the front panel and Enable the knife.
	2) Knife cable unconnected.	1) Power off and remove the power cord from the AC entry. Remove the back cover and inspect the cable and connector to the knife module.
	3) Knife jammed causing auto resetting fuse to trip on the Thermal Control Board.	1) Remove cause of jam at the knife.
	4) Faulty knife motor.	1) Replace the knife motor.
	5) Faulty knife motor drive circuit on the Thermal Control Board.	1) Replace the Thermal Control Board.
The stacker fails to run.	1) The stacker cable is unconnected.	1) Power off and insert the stacker cable in the stacker socket on the Thermal Control Board.
	2) Stacker jammed causing auto resetting fuse to trip on the Thermal Control Board.	1) Remove cause of jam at the stacker.
	3) Faulty stacker motor.	1) Replace the stacker motor.
	4) Faulty stacker motor drive circuit on the Thermal Control Board.	1) Replace the Thermal Control Board.

Mechanical Trouble Shooting

Fabric

Problem	Probable Cause	Corrective Action
Fabric will not roll or jumps	1) Incorrect adjustment of unwind web guides	1) Be sure fabric roll is as flat as possible and does not extend over core.
		2) Adjust the web guides to touch the fabric roll without pinching the core.
Fabric jams in bridge blade rollers or knife area.	1) Knife mounted bridge blade too close to stationary bridge blade.	1) Loosen screws in upper knife securing bridge blade roller assembly and slide up (holes in blade are slotted) until rollers just contact fabric. Tighten screws.
	2) Knife not cutting full width of fabric.	1) Loosen knife shear adjustment screws and move outer end of knife until full cut is accomplished.
	3) Stacker not operating or nip rollers not turning.	1) Be sure the nip roller is free to rotate and moves easily in the bearing slots.
Will not stack.	1) Stacker not operating.	1) See step 3 above.
	3) Incorrect rail position or stacker bed angle.	1) Using a cut label, position stacker rails so that approximately 3/8" (9.5mm) overhangs the second grooved roller. Loosen quick-turn handle on stacker clamp and raise or lower stacker bed until opening between 1st label overhang and belt surface will allow entry of next label.
Knife will not cut or partial cut	1) Incorrect pre-load on clutch pawl.	1) With back cover removed and <u>power off</u> - operate solenoid by hand. When lever is moved, clutch pawl should move counter-clockwise about 1/32" (0.79mm) with the "pac-man" in home position. If not - loosen "pac-man" set screws and readjust "pac-man" to stop with spring in detent.
	2) Partial cut	1) Loosen shear adjustment screws and move outer end of knife until full cut is obtained.

Ink

Problem	Probable Cause	Corrective Action

Print

Problem	Probable Cause	Corrective Action

Sensor Locations

A – Fabric Out / Splice Sensor – Detects when the fabric is depleted or a splice is present.

B – Active Unwind Loop Sensor – Detects the fabric to maintain a predetermined amount of slack in the active unwind.

C – Jam Sensor – Detects a jam in the stacker.

D – Full Stacker – Detects when the stacker is full.

E – Ink Cartridge Status – Detects if an ink cartridge is inserted into the machine and also gives information about the ink cartridge

F – Feed Open Sensor – Detects if the feed lever is open.
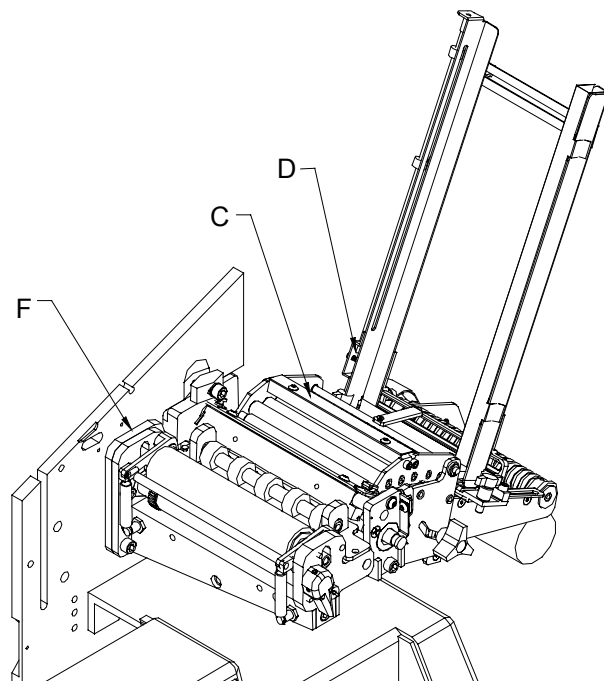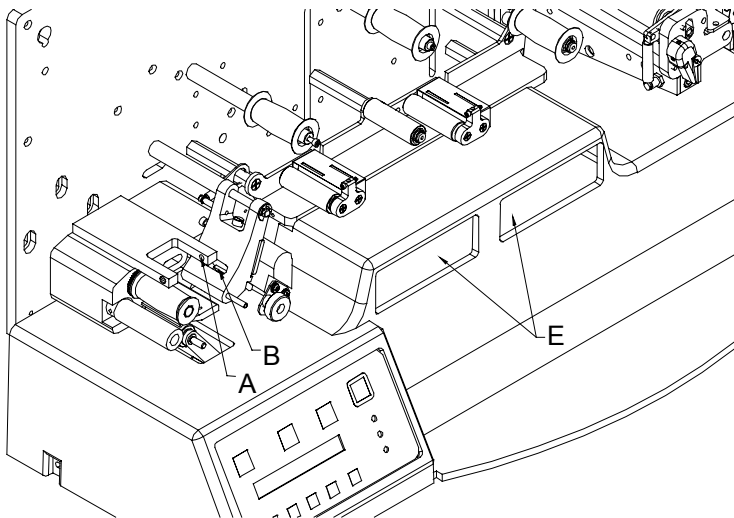
Non-volatile Memory Reset
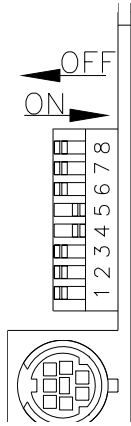
It may be necessary from time to time to reset the non-volatile SRAM in the machine. This can be done by using the DIP switch setting of the TCB at power up. Use the following steps to perform this function:

 1) Power off the machine.

 2) Change switch number 2 from its present position.

 3) Power on the machine, wait at least 30 seconds, then turn power off.

 4) Change switch number 2 back to its original position.

 5) Power on the machine and reset the front panel adjustments as needed.

Electrical Drawings

Printer Wiring

Electrical System Schematic

AC ENTRY
341111

115V 230V

LINE

GROUND

NEUTRAL

LINE CORD
181134

A
B
C
D

115V OPERATION
ONE 6.25A 250V
1/4 X 1 1/4 FUSE 990689

230V OPERATION
TWO 6.0A 250V
5 X 20MM FUSES 990757

CONN 6

HARNESSED 24V
POWER SUPPLY
341116

L
N
115V STRAP
115V STRAP
G

+24V

RETURN

J6 FINISHING J8
    INTERFACE
J7 BOARD   J1
    341107

351132   ACTIVE UNWIND MOTOR
              351141

CONN 4   LOOP SENSOR
           341137

SYSTEM
HARNESS
341139

OPTIONAL
PCMCIA
BOARD
351181

FRONT PANEL
351108

J1

TCB TO FP
CABLE
371119

CONN 3   SPLICE/STOCKOUT SENSOR
           HARNESSED 371133
           FEED OPEN
           SWITCH 191120
CONN 2   LIGHT-BAR 371120 (OPTIONAL)
CONN 4   TOP REFLECTIVE REGISTRATION
           SENSOR 371128 (STANDARD)
CONN 4   BOTTOM REFLECTIVE REGISTRATION
           SENSOR 371128 (OPTIONAL)
CONN 3   TOP CONTRAST REGISTRATION
           SENSOR 341120 (OPTIONAL)

5V/12V
POWER SUPPLY
341118

L
N

+12V

+5V

RETURN

ONE OF FOUR
MOUNT STAND-OFFS/NUTS
DO NOT POWER ON WITHOUT
SUFFICIENTLY SECURED
GROUND

5V/12V
HARNESS
341141

J3/J4

SYSTEM HARNESS
ASSEMBLY 341126

J1   J13
        STEPPER MOTOR CABLE   FEED MOTOR
    J8 351132   351141
    JX
        J11   HEAD MOTOR
                                  341132
        J10   HEAD MOTOR
                                  341132
        J12   KNIFE MOTOR
                HARNESSED 351171
                KNIFE SOLENOID
                HARNESSED 351123
        J9 STACKER HARNESS   STACKER MOTOR
            351125   HARNESSED 351161
                              CONN 2
                              FULL STKR SWITCH
                              HARNESSED 351160
                              CONN 3
                              JAM SENSOR
                              HARNESSED 371133
                              CONN 3

1 2 3 4 5 6 7 8 9 10 11 12

MOTHER BOARD
371170

AT
BUS

VL
BUS

CONN 4

PROCESSOR
FAN

THERMAL CONTROL
BOARD
371105IJ

SERIAL CABLE
EXTERNAL 351124

J7 J2 J5 J6

OPTIONAL IN LINE VERIFIER 351144

TCB TO VERIFIER   VERIFIER   SCANNER
HARNESS 371158   PCB   351144
                    351184   VERIFIER
                                HARNESS 351159

MACHINE COOLING
FAN 511120

CONN 4

TCB TO HDB
351121

ASSY, PRINT MODULE
CABLE 341128

PRINT MODULE
345090 X 2
STATION #1
INBOARD PRINTHEAD

MODULE   J2 PRINTHEAD   341101
BOARD 1   CABLE 341123
341105   J5
              INK CARTRIDGE
          J1
          J3 OUTBOARD

STATION #2
INBOARD

MODULE   J1 J2
BOARD 2
341105   J5 INK CARTRIDGE

          J3 OUTBOARD

HEAD
DRIVER
BOARD
341106IJ

J6 J4/J5 J3

J1 N.C.

J7

NOTES:

1. ALL AC WIRE 18AWG 600V INTERNATIONAL
COLOR CODE:

LINE	BROWN
NEUTRAL	LT. BLUE
EARTH GROUND	GREEN W/YELLOW STRIP

2. DC OUTPUTS OF POWER SUPPLY:

+5V	RED
+12V	YELLOW
+24V	GRAY
RETURN	BLACK

Motherboard Power Connectors

The power supply connector on any PC / XT or PC / AT compatible motherboard is made up of dual six-pin male connectors. Two female connectors from the power supply plug directly onto these male connectors. The following diagrams illustrate the proper method of attaching the connectors.

Ensure that the black wires are located next to each other in the center of the two connectors (as shown in the diagram below), and that the clamps on the back side of the connectors are secured along the PCB header. All pins should be covered.

Warning: Connecting the power supply incorrectly may cause irreversible (unwarranted) damage! Ensure that the power is turned off before connecting the power supply. Make certain that the 115 / 230VAC fuse drawer is in the correct position.
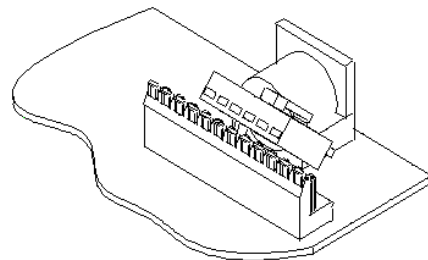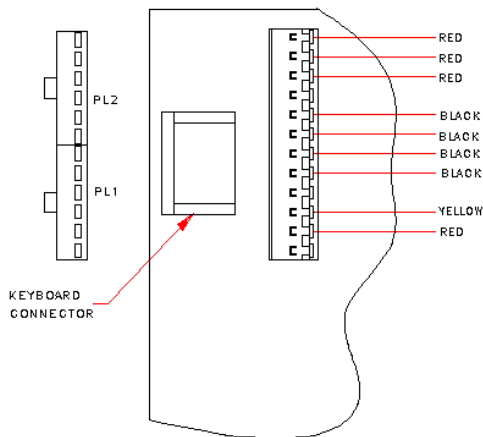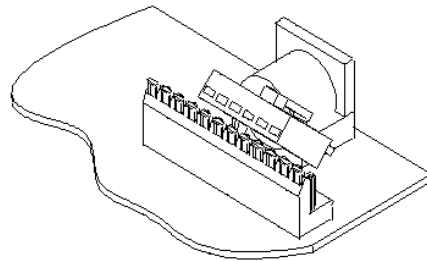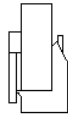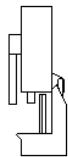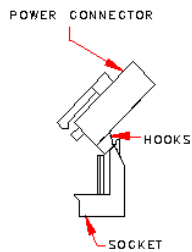
Appendix A

Error Messages

On the Machine's detection of error(s), the display will show the first error encountered and allow the displaying of any other errors with the <YES / NO> keys, which will "Scroll" through additional errors if any.

XX is the total number of errors at the time of error detection.

ERROR SCREENS:

The screen advances to next error with each depression of the "NO>" key

The screen retreats to prior error with each depression of the "<YES" key

The screen reverts back to the first error when the "EXIT" key is pressed.

X	X			E	R	R	O	R	(	S	)												
S	T	O	P	P	E	D			F	O	R			S	P	L	I	C	E			9	

X	X			E	R	R	O	R	(	S	)												
I	N	K			O	U	T			S	T	A	T	I	O	N		1			9	0	4

X	X			E	R	R	O	R	(	S	)												
I	N	K			O	U	T			S	T	A	T	I	O	N		2			9	0	5

X	X			E	R	R	O	R	(	S	)												
F	E	E	D			O	P	E	N												9	1	0

X	X			E	R	R	O	R	(	S	)												
M	I	S	S	E	D			S	E	N	S	E			M	A	R	K			7	O	1

X	X			E	R	R	O	R	(	S	)												
C	H	E	C	K			S	T	A	C	K	E	R								9	0	2

X	X			E	R	R	O	R	(	S	)												
V	E	R	I	F	I	E	R			H	A	L	T								9	1	2

Appendix B

Chip Upgrade Positions / Jumper Settings
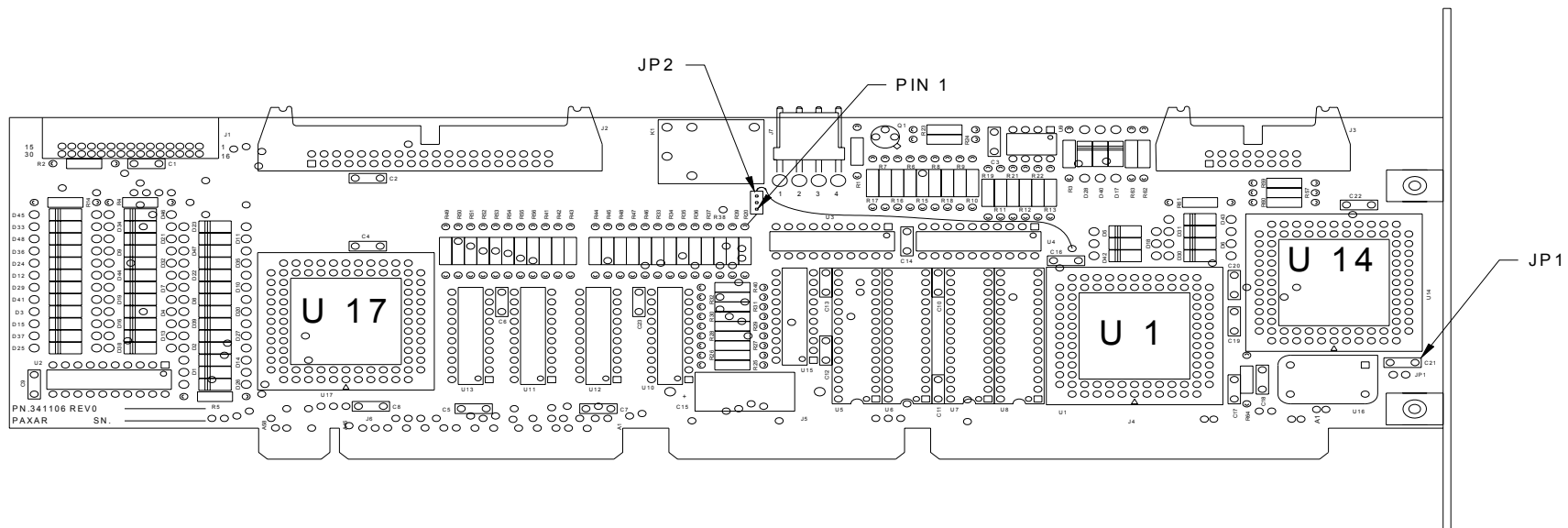
Head Driver Board P/N 341106
(Use chip removal tool P/N. 351156 for square I.C removal)
HEAD DRIVER BOARD, Upgradeable software I.C.'s include U1, U14, U17.
PLCC CHIPS align angled corner of chip with angled corner of socket that is counter clockwise to the arrow.

JUMPER	SETTING
JP1	Off
JP2	2 to 3
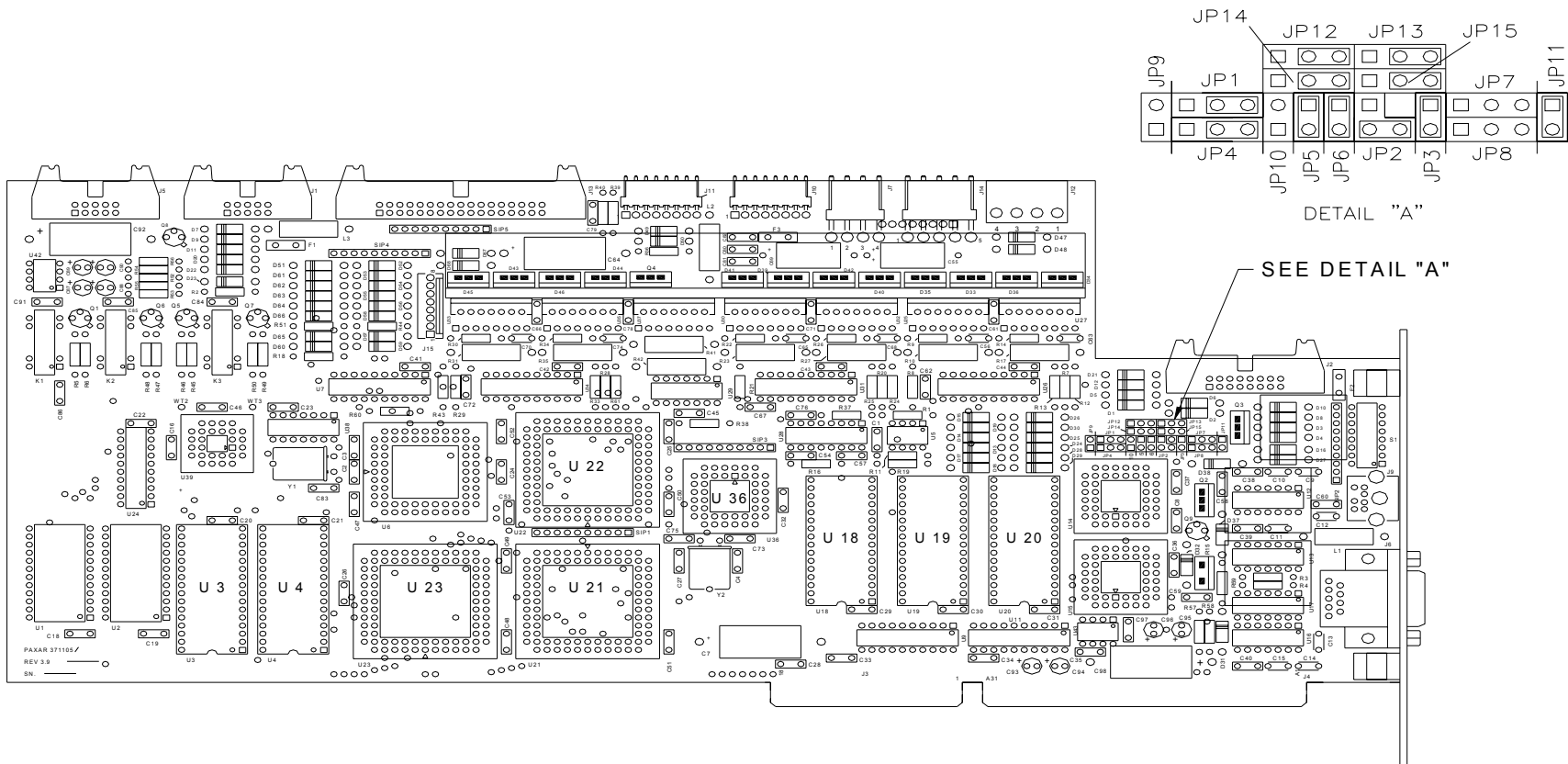
Thermal Control Board P/N 371105IJ

(Use chip removal tool P/N. 351156 for square I.C removal)

THERMAL CONTROL BOARD, Upgradeable software I.C.'s include U3, U4, U18 - U20, U36.

PLCC CHIPS align angled corner of chip with angled corner of socket that is counter clockwise to the arrow.

DIP CHIPS align notch on chip with the notch on the socket (U3 & U4 chips are four pins smaller than U3 & U4 sockets, position chips towards top of socket so that the unused socket pins are at the bottom closest to the notch.

Front Panel Board P/N 511108

J 1
1   2
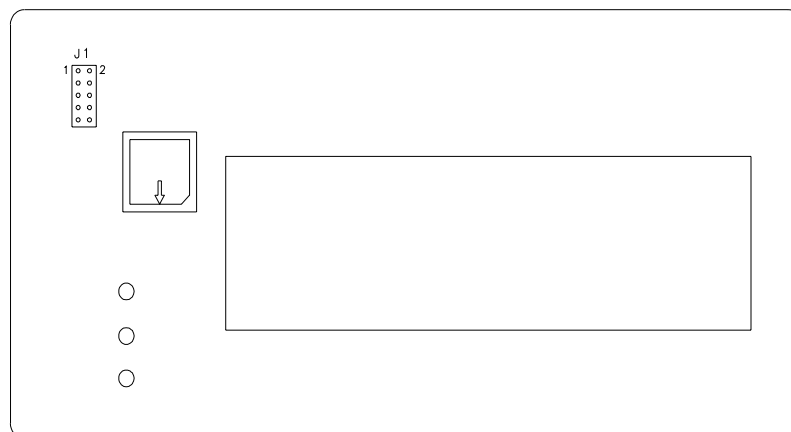
(Use chip removal tool P/N. 351156 for square I.C removal)

FRONT PANEL BOARD, Upgradeable software I.C.'s include U1.
PLCC CHIPS align angled corner of chip with angled corner of socket that is counter clockwise to the arrow.

Front Panel Diagnostic Descriptions

Diagnostic Numbers	Descriptions
1	Front panel initialization
2	TCB Opsys initialization
5	Attempting Serial Host Initialization
6	Initializing Verifier
7	Executing Protected Mode Imaging Code
8	Checking PCMCIA Card
9	Attempting to read in scalable fonts.
10	Initializing Font Scaler
11	Attempting to load code pages
12	Attempting to read in logos
13	Attempting to read in care symbols
14	Waiting for Machine Definition from TCB
15	Attempting to create test pattern
16	Attempting to create strobe tables
17	Attempting to read in formats
18	Protected Mode Imaging Code initialization complete
19	Serial Communications Activated
0	Power up complete

Appendix C

Ink Management / Shelf Life

The liquid ink contained in the ink cartridges has a shelf life of one year. It is therefore recommended that any inventory supply be rotated on a regular basic to prevent exceeding its expiration date.

Caution: Expired ink may damage print heads. Check the expiration date on the cartridge label. Do not use expired ink. Contact your Paxar representative for instructions on returning expired cartridges.

Appendix D

Knife MFG Guidelines

Solenoid Trigger Setting

.047 +.000
      -.020

FEELER GUAGE
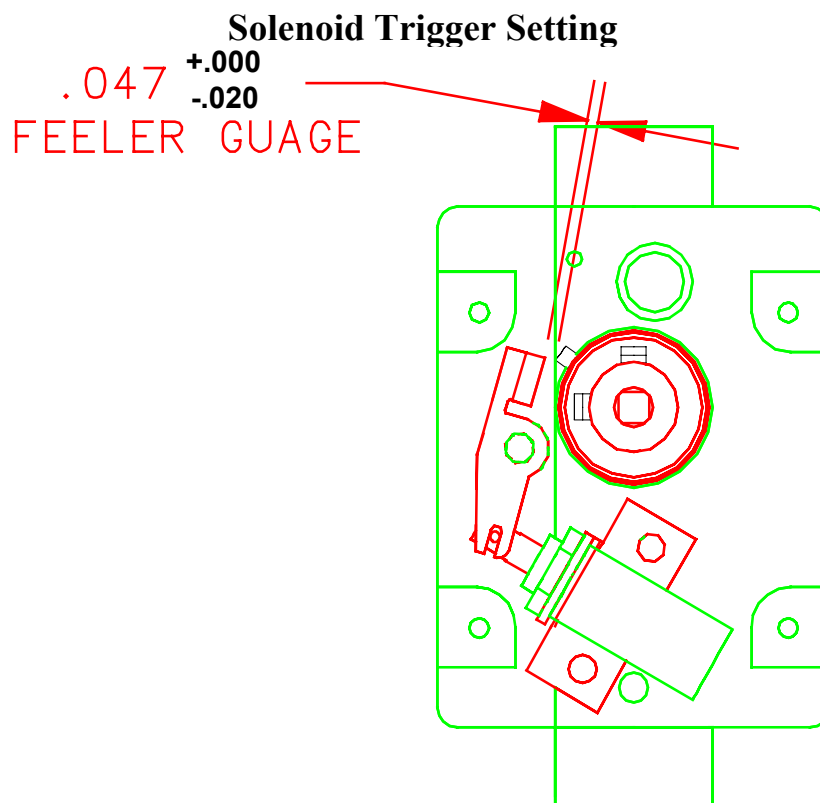
1. After the clutch and actuator is mounted to the knife, attach the solenoid assembly to the inside support using two 6-32 x 3/8 cap screws, flat washers, and lock washers. Make sure the plunger moves freely and does not bind. Motor and faceplate must be mounted also.

2. Check the gap between the actuator and the top of the pin on the clutch as shown in drawing. The plunger should be pushed in to make the measurement.

Other hints if there is still a problem:

• If the gap is greater then .047", an old solenoid bracket is being used. Replace (P/N 357003) or slot the bracket.

• If plunger binds, the solenoid is not parallel with the base of the bracket that mounts to the knife support, and/or the actuator slot is bottoming out on the roll pins that are on the plunger. Make adjustment or replace the bracket.

Appendix E

Material Safety Data Sheet

======================= SECTION I - GENERAL INFORMATION =======================

PRODUCT NAME: IJ1111   DATE PREPARED: September 28, 1998
MANUFACTURER'S NAME: PAXAR CORPORATION, Systems Group

MANUFACTURER'S ADDRESS: PAXAR CORPORATION
                                   1595 Cedar Line Drive
                                   Rock Hill, SC 29730

EMERGENCY TELEPHONE NUMBER: (803) 324-2486

CHEMICAL NAME: Pigmented liquid ink
SYNONYMS: None
FORMULA: Mixture

================= SECTION II - HAZARDOUS INGREDIENT INFORMATION =================

COMPONENT	Weight %	C.A.S#	OSHA PEL	ACGIH TLV
Hydrocarbon solvent	70 - 80		200 ppm	200 ppm
Alcohol	10 - 30	143-28-2	N/A	N/A
Pigment	10 – 20		N/A	N/A

========================== SECTION III - PHYSICAL DATA ==========================

BOILING POINT (°F): >250°C   SPECIFIC GRAVITY (H_2O=1): 0.88
VAPOR PRESSURE: <0.01 kPA @ 38°C   FREEZING POINT: <10°C
EVAPORATION RATE: (BUTYL ACETATE=1):   N/A   WEIGHT PER GALLON: 7.3
SOLUBILITY IN WATER: Dispersible but immiscible   % VOLATILES PER VOLUME: <80%
APPEARANCE AND COLOR: Solvent based ink; mild hydrocarbon odor

==================== SECTION IV - FIRE AND EXPLOSION HAZARD ====================

FLASHPOINT: >120°C

FLAMMABLE LIMITS: LEL: Not Known   UEL: Not Known

RECOMMENDED EXTINGUISHING MEDIA: Dry chemical, carbon dioxide, waster mist, foam

RECOMMENDED SPECIAL FIRE FIGHTING PROCEDURES: None required

UNUSUAL FIRE AND EXPLOSION HAZARD: N/A

========================== SECTION V - REACTIVITY DATA ==========================

STABILITY: Stable

INCOMPATIBILITY: Strong oxidizing agents

HAZARDOUS DECOMPOSITION PRODUCTS: None known to exist.

HAZARDOUS POLYMERIZATION: Will not occur.

======================= SECTION VI - HEALTH HAZARD DATA =======================

ROUTES OF EXPECTED ENTRY: INHALATION - Not likely
                                 INGESTION - Yes
                                 SKIN - Yes

HEALTH HAZARDS: ACUTE - None to mild skin irritation
                                 CHRONIC - No known chronic hazards are expected from this product

CARCINOGENICITY: None known

FIRST AID PROCEDURES: Eyes: Wash eyes immediately with large amounts of water until no
                                        evidence of material remains (at least 15 minutes).
                                        Get medical attention immediately.

                                 Inhalation: Symptomatic treatment.

                                 Skin: Remove contaminated clothing and wash affected area with mild
                                        soap and large amounts of water. If irritation or rash develops,
                                        get medical attention.

                                 Ingestion: Symptomatic treatment.

====================== SECTION VII -HANDLING PROCEDURES ======================

SPILL OR LEAK: Contain spill with inert material (sand, earth, etc.). Transfer liquids and solid material to
               separate containers for recovery or disposal. Keep spills and runoff out of municipal
               sewers and open bodies of water.

DISPOSAL METHOD: Material is currently not considered to be a hazardous waste material. Waste material
                 may be disposed of through routine handling for any sanitary / municipal waste
                 material in accordance with federal, state and local laws.

HANDLING AND STORAGE: Use is accordance with good industrial workplace practices. Store in a dry area
                      away from excessive heat or cold.

======================= SECTION VIII - CONTROL MEASURES =======================

RESPIRATORY PROTECTION: None is specifically recommended for handling this product.

VENTILATION: None required. Respiratory exposure to material in aerosol form
                                    should be avoided.

EYE PROTECTION: None required. Avoid contact with eyes. Use glasses or face shield
                                    when transferring large quantities.

SKIN PROTECTION: None required. Avoid contact with skin. Use gloves when
                                    transferring large quantities.

OTHER PROTECTIVE EQUIPMENT: None is specifically recommended for handling this product.

OTHER PRECAUTIONS: This product is intended for industrial use only.

======================= SECTION IX - SPECIFIC INFORMATION =======================

HMIS RATING: HEALTH   1
                        FLAMMABILITY   1
                        REACTIVITY   0

The information contained herein is furnished without warranty of any kind. It is
compiled with the best information available to Paxar at the time of its preparation.
Users should consider these data only as a supplement to other information gathered
by them and must make independent determinations of the suitability and
completeness of the information from all sources to assure proper use and disposal
of these materials and the safety and health of employees and customers.

Assembly Drawings

Frame Assembly Cover Drawing
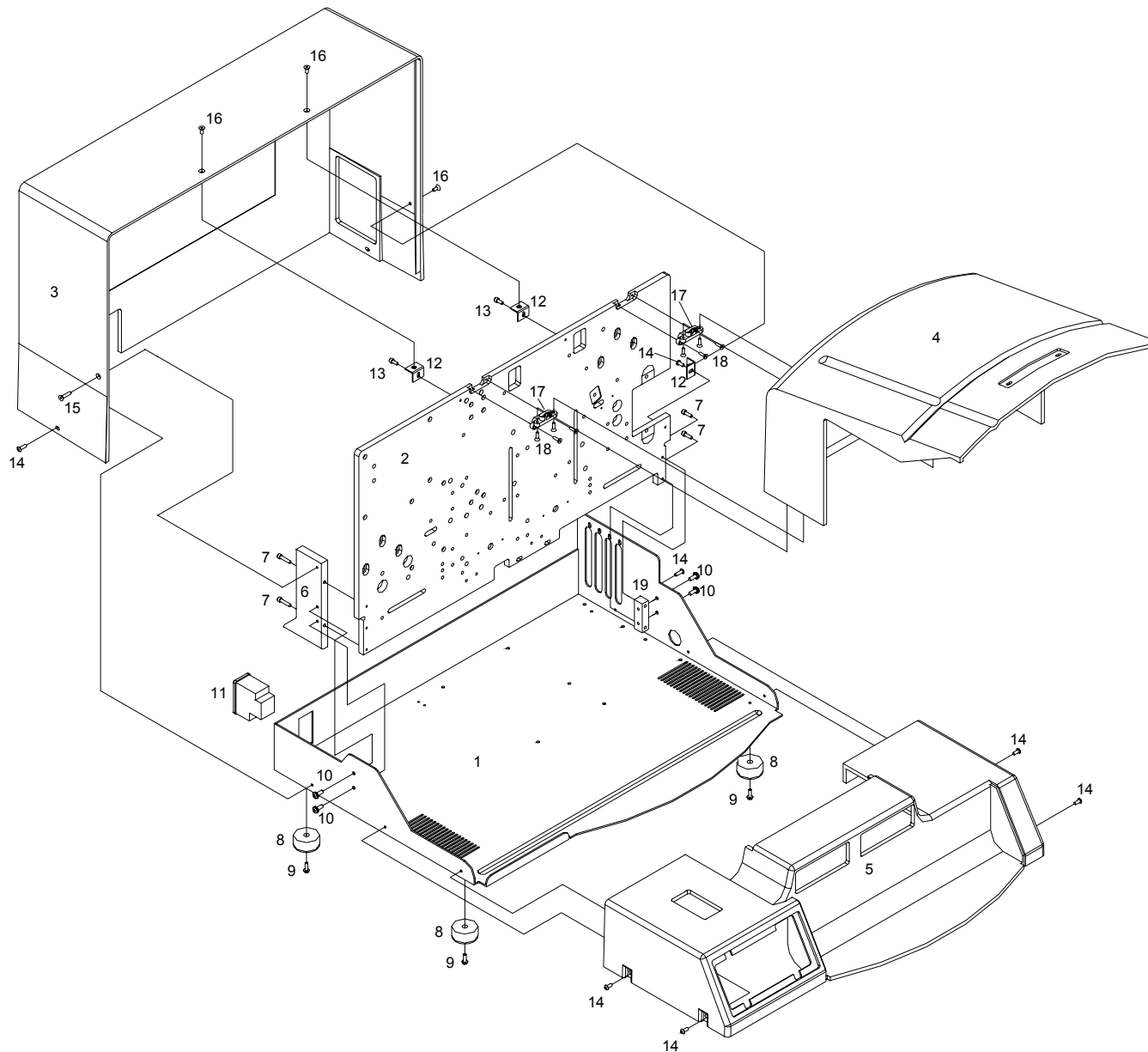
Frame Cover Parts List

Item	Part #	Description	Qty
1	341203	560 Base Pan	1
2	341206	Frame, Upright	1
3	341202	Back Cover	1
4	341204	Hinged Cover	1
5	341201	Front Cover	1
6	341216	Mounting Block, Triangle	1
7	990053	8-32 x ¾ Cap Screw	4
8	341210	Feet, 1 ½" Dia. Rubber	4
9	991079	8-32 ½ Thread Forming Screw	4
10	341215	10-32 x ½ Sem Screw	4
11	341111	AC Entry With Switch	1
12	511209	Bracket, Angle	3
13	990051	8-32 x 3/8 Cap Screw	2
14	991054	8-32 x 3/8 Btn. Hd. Socket Screw	7
15	990456	8-32 x ½ Flat Head Socket Screw	1
16	990055	8-32 x 3/8 Flt. Hd. Socket Screw	3
17	341209	Hinge, 101 Invisible	2
18	990023	6-32 x ½ Flat Head Socket Screw	8
19	341213	Brace, Upright	7

Frame Assembly Drawing
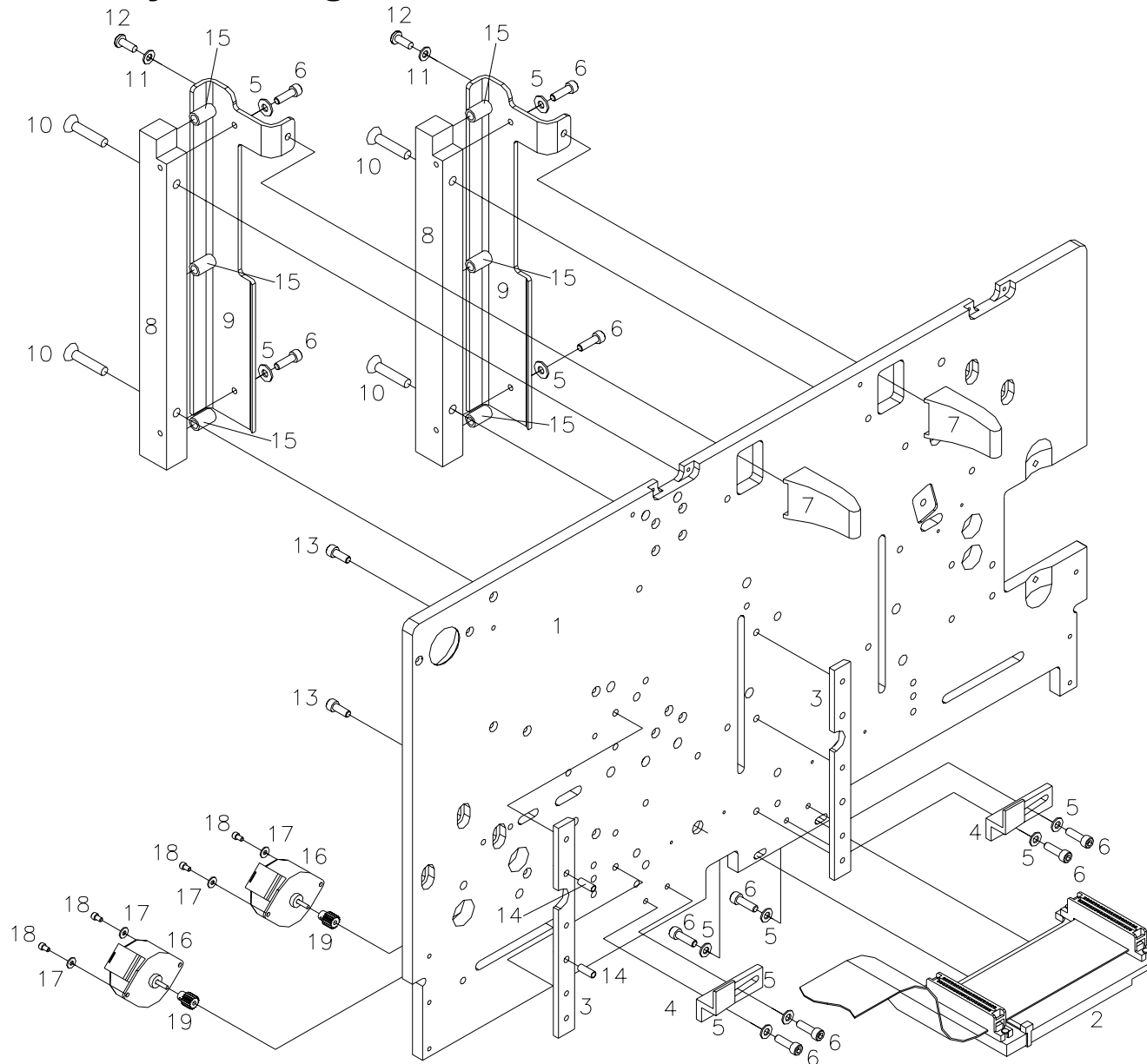
Frame Parts List

Item	Part #	Description	Qty
1	341206	Frame, Upright	1
2	341128	Assembly, Print Module Cable	1
3	345046	Chase Way, Trailing	2
4	345108	Actuator, Shroud Lock	2
5	341203	#10 Lock Washer	10
6	990082	10-32 x 5/8 Cap Screw	10
7	345037	Knob, Chase	2
8	345043	Mount, Chase Bar	2
9	345038	Bar, Chase	2
10	991115	¼-20 x 1 ¼ Flt. Hd. Socket Screw	4
11	990102	#10 Washer	2
12	990091	10-32 x ½ Button Head Screw	2
13	990081	10-32 x ½ Cap Screw	5
14	990243	Roll Pin, 3/16 x ½	2
15	143027	Spring, Brake Press	6
16	341132	Motor, Stepper Harnessed	2
17	990448	Washer, .125 x .313 x .031 Fl.	4
18	991033	4-40 x 3/16 Cap Screw	4
19	345022	Pinion, Head Drive Motor	2

Sub - Frame Assembly Drawing

Sub - Frame Parts List

Item	Part #	Description	Qty	Item	Part #	Description	Qty
1	341206	Frame, Upright	1	16	343038	Spindle .65	1
2*	343045	Shaft, ABC Spindle	2	17	343110	Bracket, "F" Post	1
3	343044	Spacer, Outer Race	1	18*	343058	Roller, Convex	2
4	343041	Standoff, Partition Short	4	19	343055	Spacer, .65 Spindle	3
5	343040	10-32 x 3/8 Flat Head Screw	7	20	343035	"C"- Ring	3
6	343102	Bracket, Adjuster	2	21*	344062	Spring, Compression	2
7	343103	Standoff, Adjuster	2	22*	343101	Bearing, Retainer Spindle	3
8	990023	6-32 x ½ Flat Head Screw	4	23	990053	8-32 x ¾ Cap Screw	1
9	991125	8-32 x 3/16 SK Set Screw Soft Tip	2	24	345116	Standoff Static Brush	1
10	991137	3-48 x ½ Cap Screw	2	25	345115	Static Brush	1
11	990145	¼ Lock Washer	6	26	990066	8-32 x ¼ Button Head Screw	2
12	990121	¼-20 x 5/8 Cap Screw	6	27	346407	Bracket, Nozzle Guard	2
13*	990016	6-32 x 3/5 Cap Screw	3	28	990019	6-32 x ¼ Button Head Screw	2
14	343039	Shaft, D-G Spindle	4	29	343059	Spindle, .75	1
15*	343048	Bearing, Ball Spindle	12	30	990097	10-32 x 5/8" Set Screw	1

* Items Marked with an Asterisk Make up ABC Spindle Assembly - Part # 344091P.

Power Unwind Assembly Drawing

Power Unwind Parts List

Item	Part #	Description	Qty
1	341206	Frame, Upright	1
2	343135	Ass'y, Bracket Unwind	1
3	990486	E-ring 3/8	1
4	343120	Shaft, Capstan	1
5	343122	Stud, Barrel Idler	1
6	991067	8-32 x 5/16 Knuckle Cup Set	2
7	343150	Roller, Drive	1
8	343193	Ass'y Spindle Idler	1
9	990329	E-ring 7/32	1
10	343208	Bracket, Sensor Mount	1
11	371133	Sensor Harness	1
12	343118	Shaft, Web Guide	1
13	343117	Guide, Web Outside	1
14	154020	Web Guide Shaft	1
15	343116	Guide, Web Inside	1
16	990273	#10 Bellville Washer	2
17	343115	Bracket, Outer Web Guide	1
18	343141	6-32 x 3/8 Sem Screw	2
19	343126	Knob, Web Guide	1

Item	Part #	Description	Qty
20	989966	Washer, 4 Star	1
21	990001	4-40 x 5/8 Cap Screw	1
22	990122	¼-20 x ¾ Cap Screw	3
23	990145	¼ Lock Washer	3
24	990080	10-32 x 3/8 Cap Screw	6
25	351141	Ink Motor	1
26	990724	Standoff	3
27	343057	Belt, Timing 1/5	1
28	990102	#10 Washer	3
29	424022	Pulley, 1/5, 12T, ¼" I.D. .37	3
30	343056	Pulley, 14 Tooth	1
31	990053	8-32 x ¾ Cap Screw	2
32	990082	10-32 x 5/8 Cap Screw	2
33	343146	Stripper, Active Unwind	1
34	990728	Washer, #10 lock	2
35	990028	6-32 x 3/8 Flat Head Socket Screw	2
36	344094	Assembly, Nip Roll, Active Unwind	1
37	344095	Assembly, Snubber	1
38	343151	Drive, Tubing	1

Unwind Support Assembly Drawing
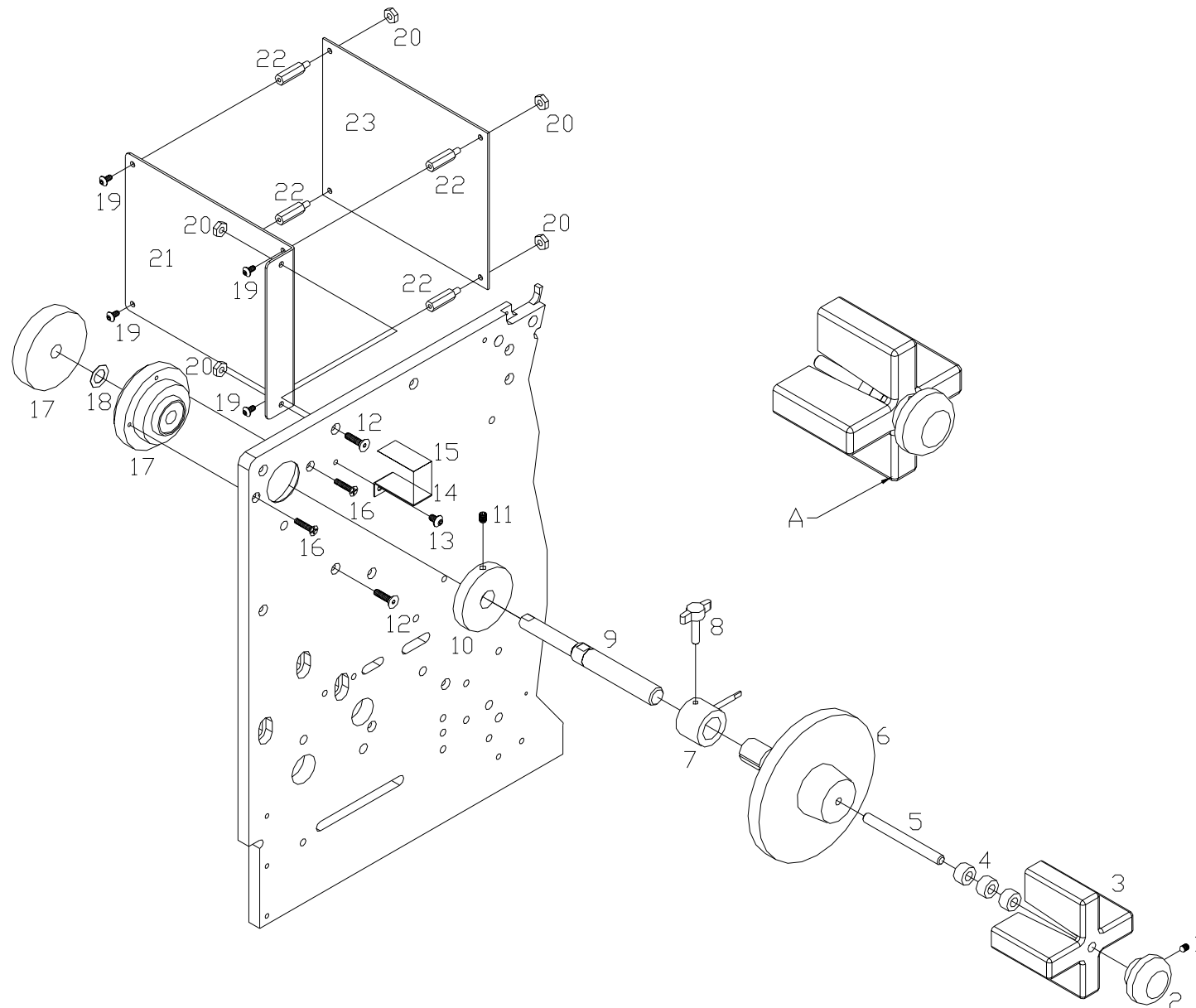
Unwind Support Parts List

Item	Part #	Description	Qty
1^A	990058	8-32 x ¼" Set Screw	1
2^A	105023	Knob	1
3^A	143016	3" Unwind Core	1
4^A	990371	¼" Collar	3
5^A	143020	Stud, Unwind Core	1
6	343204	Bracket, Arbor Disk	1
7	343225	Assembly, Collar Clamp	1
8	990894	10-32 x ¼" "T" Thumb Screw	1
9	343202	Shaft, Unwind Arbor	1
10	343222	Knob, Adjustment	1
11	990105	10-32 x ¼" Set Screw	1
12	990056	8-32 x ½" Flat Head Screw	2
13	990066	8-32 x ¼" Button Head Screw	1

Item	Part #	Description	Qty
14	343207	Bracket, Indicator	1
15	343224	Label, Indicator	1
16	991138	6-32 x 5/8" Slotted F.H. Screw	2
17	343226	Drive, Magnetic Clutch	1
18	990294	3/8 x 5/8 x .010 Shim	1
19	990019	6-32 x ¼" Button Head Screw	4
20	991055	8-32 Hex Nut	6
21	343206	Bracket, PC Board Mount	1
22	191104	Standoff, ¾"	4
23	341107	Finishing Interface Board Ass'y	1
A	141330	3" Core Adapter Assembly	1

NOTE: #^A are components of assembly A.

Unwind Nip Roller Assembly Drawing

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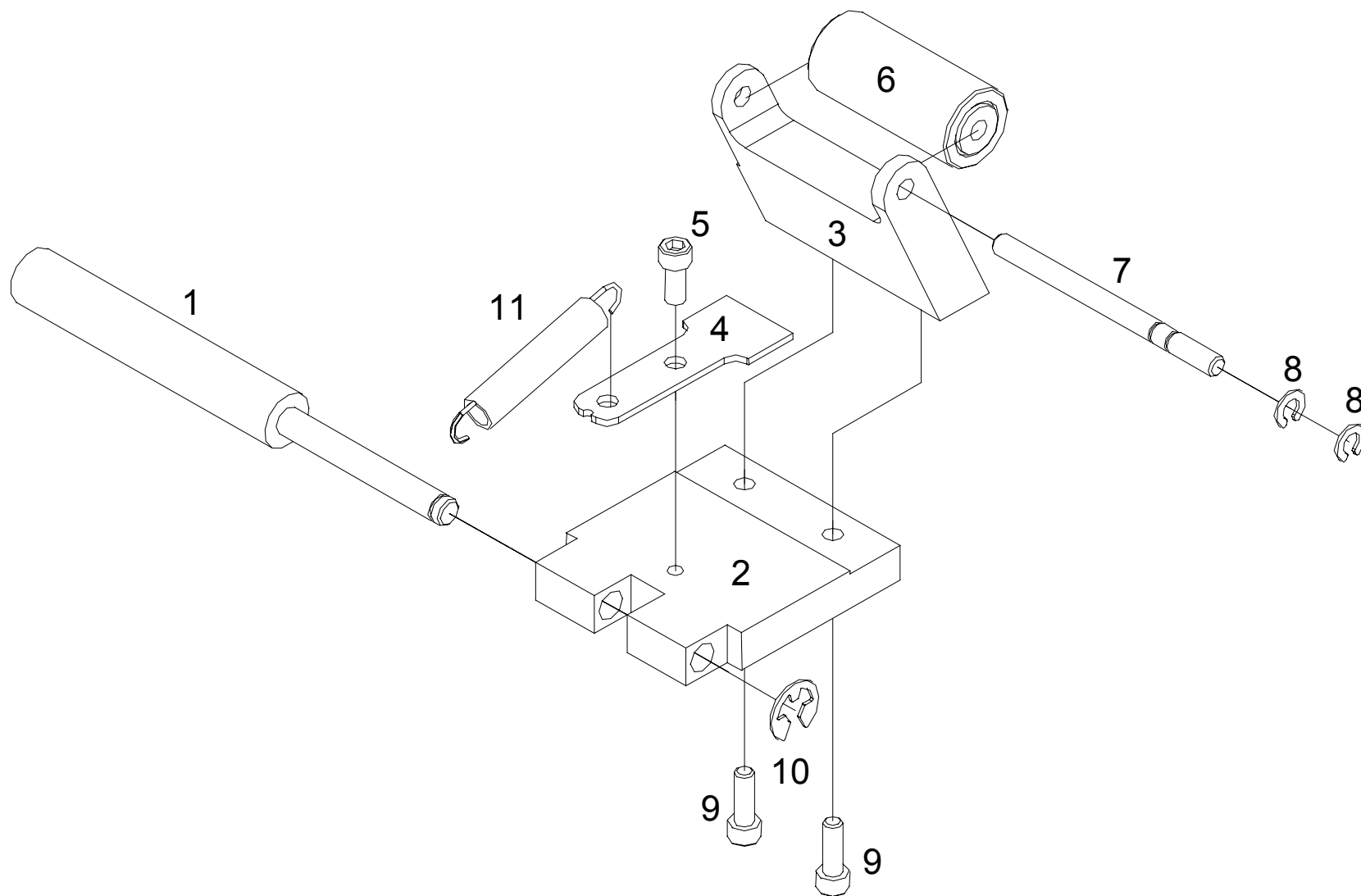
Unwind Nip Roller Parts List

Item	Part #	Description	Qty.
1	343192	Post, Snubber	1
2	343134	Arm, Unwind Nip	1
3	343131	Cradle, Unwind Nip	1
4	343130	Anchor, Nip Spring	1
5	990051	8-32 x 3/8 Cap Screw	1
6	343195	Assembly, Roller, Nip	1
7	343133	Shaft, Nip Roller	1
8	990325	"E"-Ring 3/16	2
9	990052	8-32 x ½ Cap Screw	2
10	990329	"E"-Ring 7/32	1
11	343142	Spring, Unwind Ext.	1

Unwind Snubber Assembly Drawing
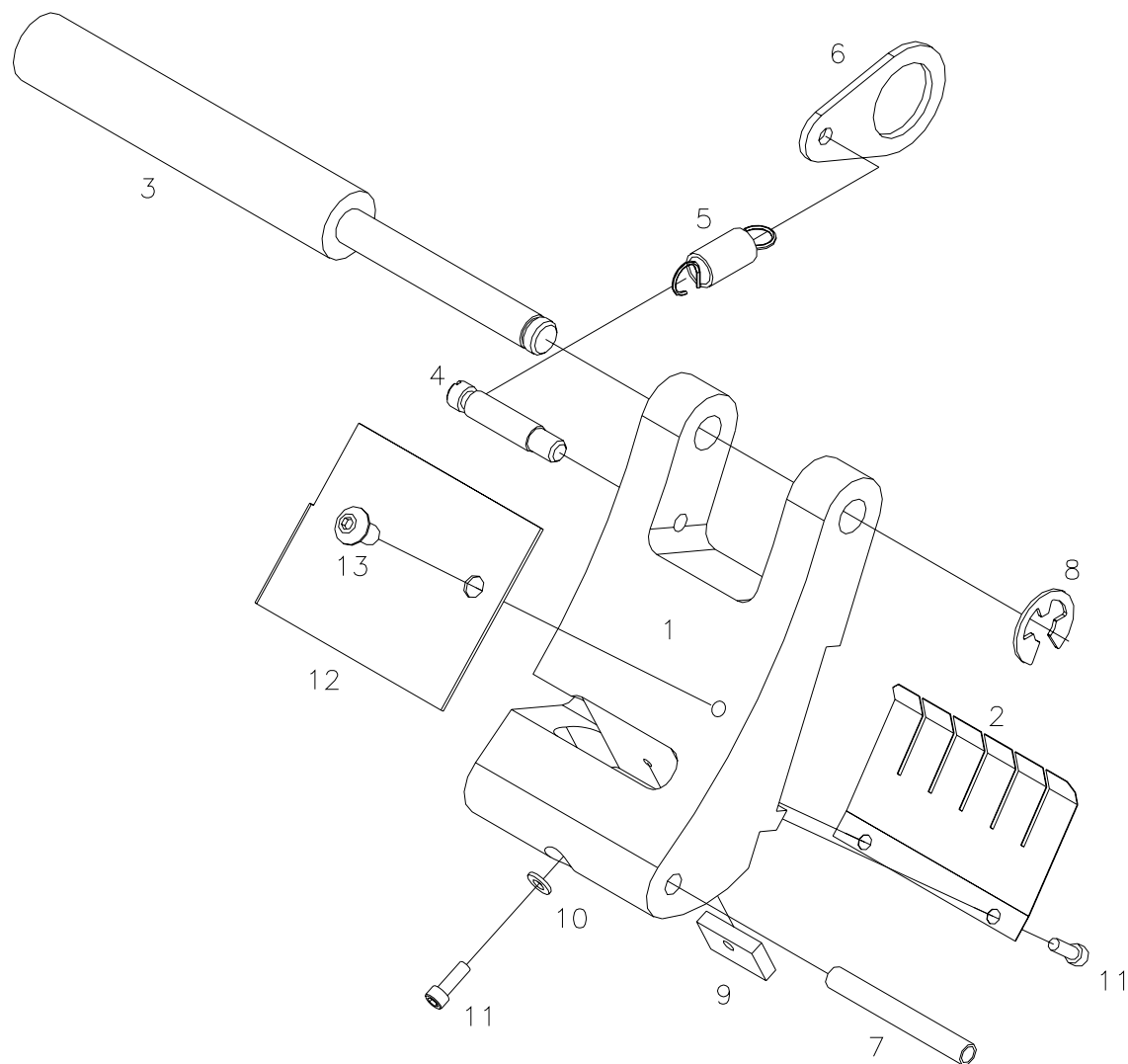
Unwind Snubber Parts List

Item	Part #	Description	Qty
1	343128	Carrier, Snubber	1
2	343162	Bracket, Snubber Comb	1
3	343192	Post, Snubber	1
4	343143	Stud, Snubber Spring	1
5	343144	Spring, Extension, Snubber	1
6	343145	Anchor, Snubber Spring	1
7	343139	Roll Pin .156 x 1.25	2
8	990329	"E"-Ring 7/32	1
9	341137	Harness, Loop Sensor	1
10	989985	Washer, #2 SAE	1
11	990000	2-56 x ¼ Cap Screw	3
12	343227	Bracket, Snubber Cover	1
13	990019	6-32 x ¼ Button Head Screw	1

Print Module Assembly Drawing
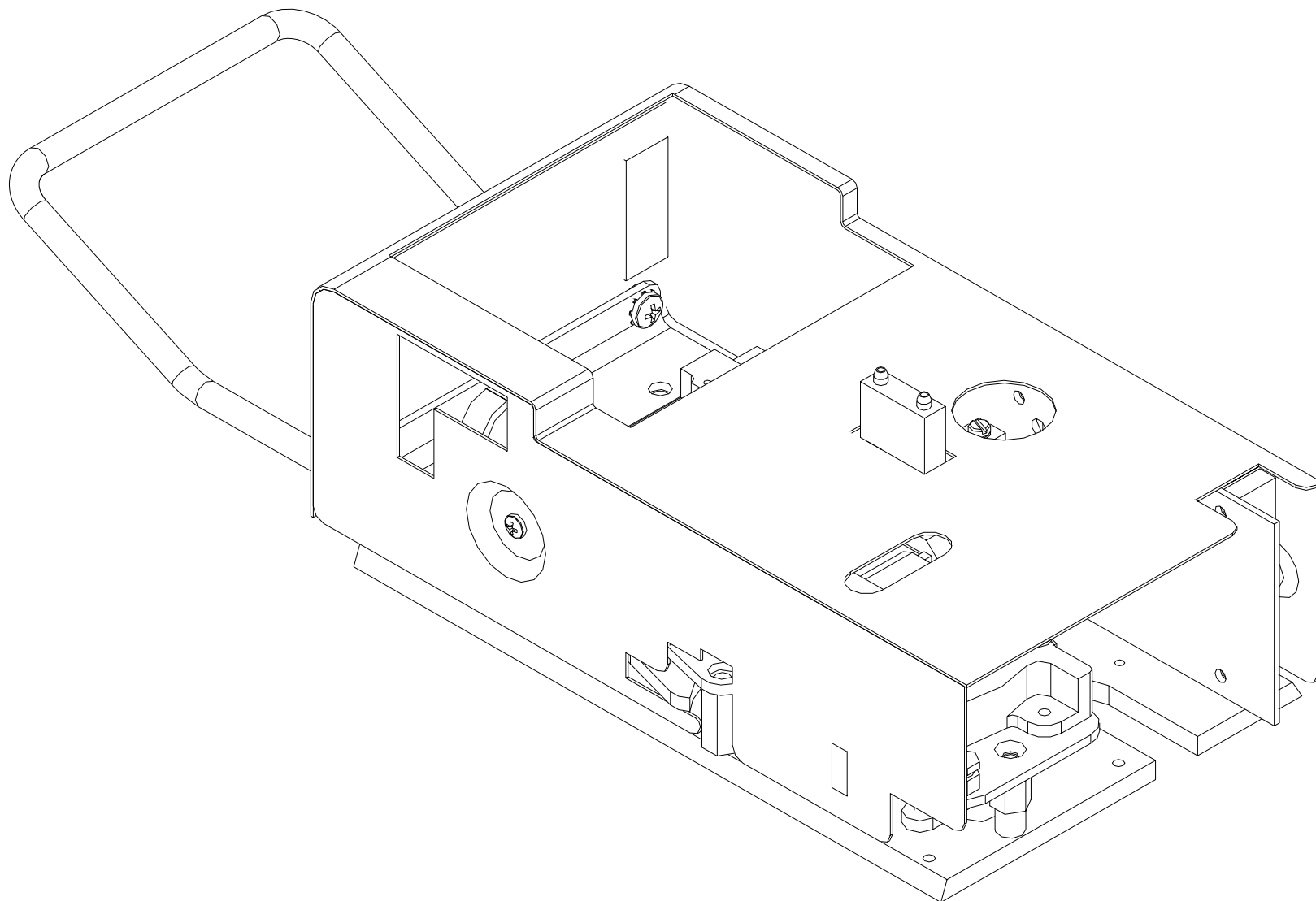
Print Module Parts List

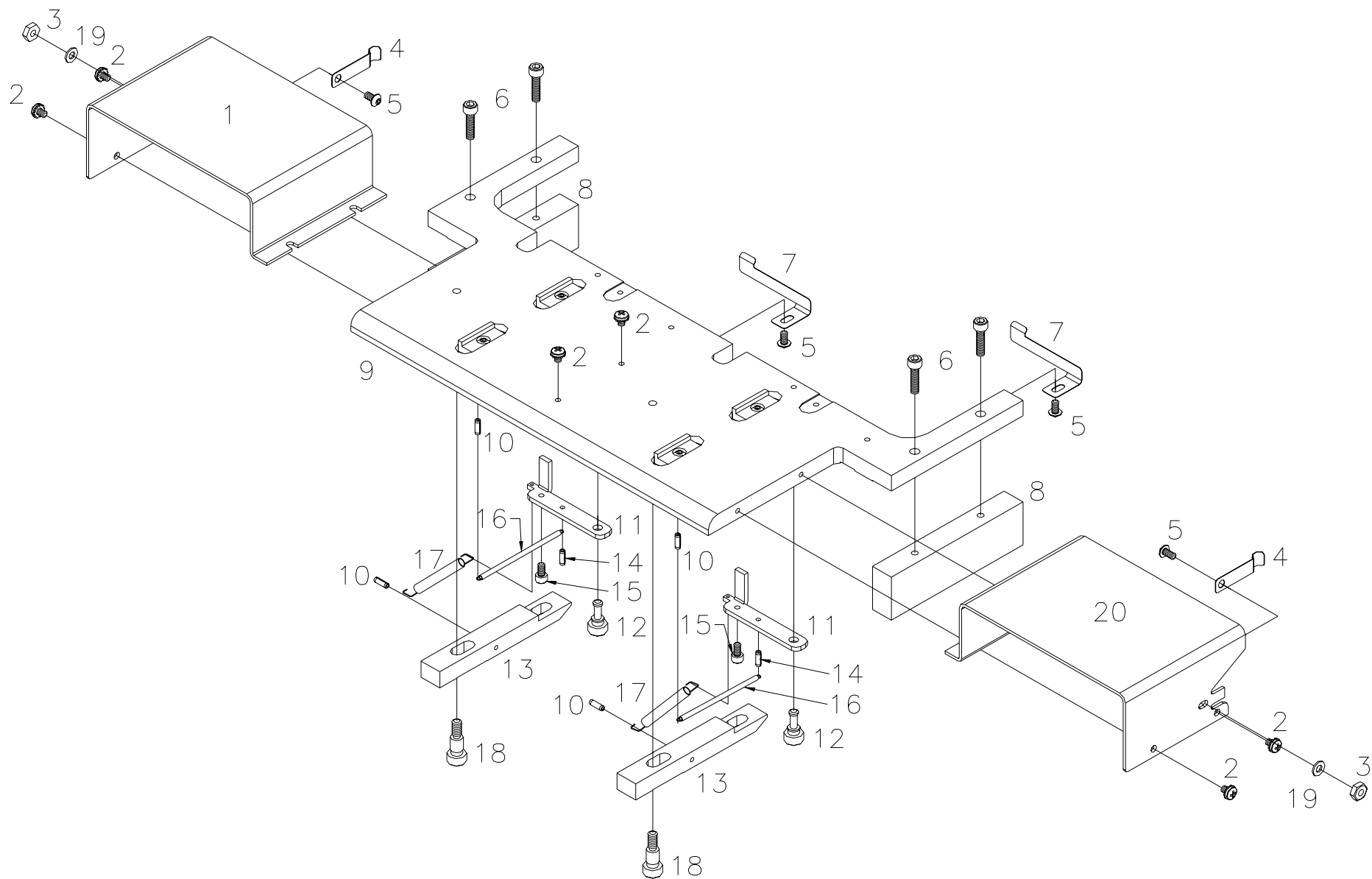There are no parts in the print module that can be changed by the user. If a print module becomes defective, it will have to be sent back to the factory for rebuilding. The same module is used in both the right and the left print stations. The part number for the complete assembly is 345090.

Cartridge Support Deck Assembly Drawing

Cartridge Support Deck Parts List

Item	Part #	Description	Qty
1	346202	Bracket, Left Enclosure	1
2	343042	6-32 SEM x 3/16" Screw	6
3	990038	6-32 Hex Nut	2
4	197312	Spring, Cam	2
5	990019	6-23 x ¼" Button Head Screw	4
6	989974	8-32 x 5/8" Cap Screw	4
7	346212	Bracket, Ground Clip	2
8	346204	Bracket, Ink Support	2
9	346201	Ink Support	1
10	990240	3/32 x ½" Roll Pin	4

Item	Part #	Description	Qty
11	346206	Lever, Actuator	2
12	990225	3/16 x 1/8" Shoulder Screw	2
13	346205	Lever, Actuation Bar	2
14	345105	3/32 x .312" Roll Pin	2
15	990015	6-32 x ¼" Cap Screw	2
16	346208	Ext. Lever Return	2
17	991058	Ext. Bar Return	2
18	991114	¼ x 3/8" Shoulder Screw	2
19	989976	#6 Star Washer	2
20	346203	Bracket, Right Enclosure	1

Feed Assembly Drawing
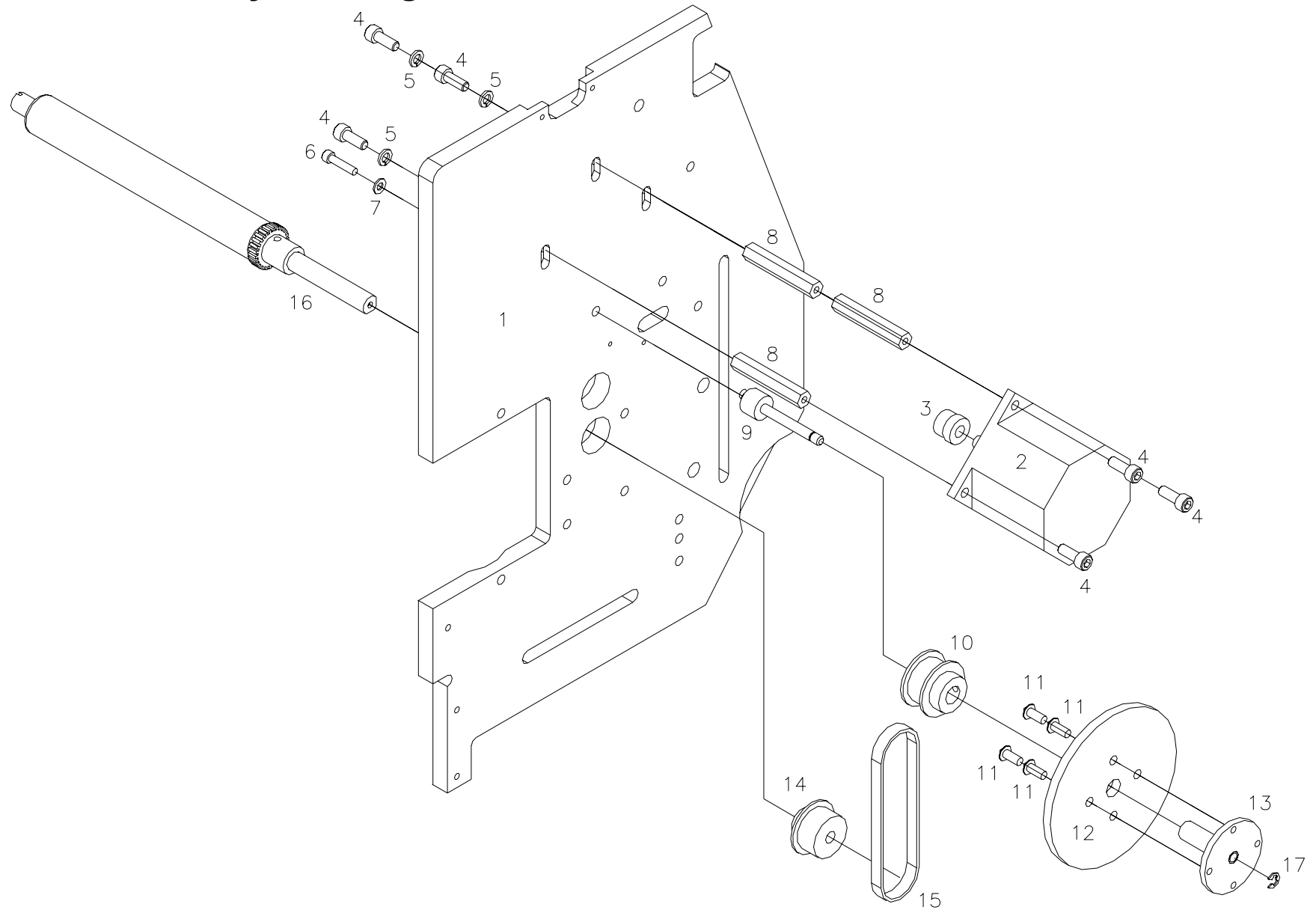
Feed Parts List

Item	Part #	Description	Qty
1	341206	Frame, Upright	1
2	351141	Ink Motor	1
3	344056K	Drive Gear, 24T	1
4	990081	10-32 x ½ Cap Screw	6
5	990728	#10 Lock Washer	3
6	990017	6-32 x ½ Cap Screw	1
7	990037	#6 Washer SAE	1
8	991073	Standoff, 1 ¾, 10-32 THD	3
9	344051	Fixed Idler Shaft	1
10	374028	Pulley, 14T PBL FLG, 3/8 I.D.	1
11	990065	8-32 x 3/8 Button Head Screw	4
12	344053	Gear 156T, 3/8 O.D.	1
13	344052K	Idler Shaft	1
14	244012	Pulley 14T SFL ¼ I.D.	1
15	344055	Belt, Timing 42T	1
16	354094	Roller Drive Assembly	1
17	989513	4mm "E"-Ring	1

Feed Roller Assembly

Feed Roller Parts List
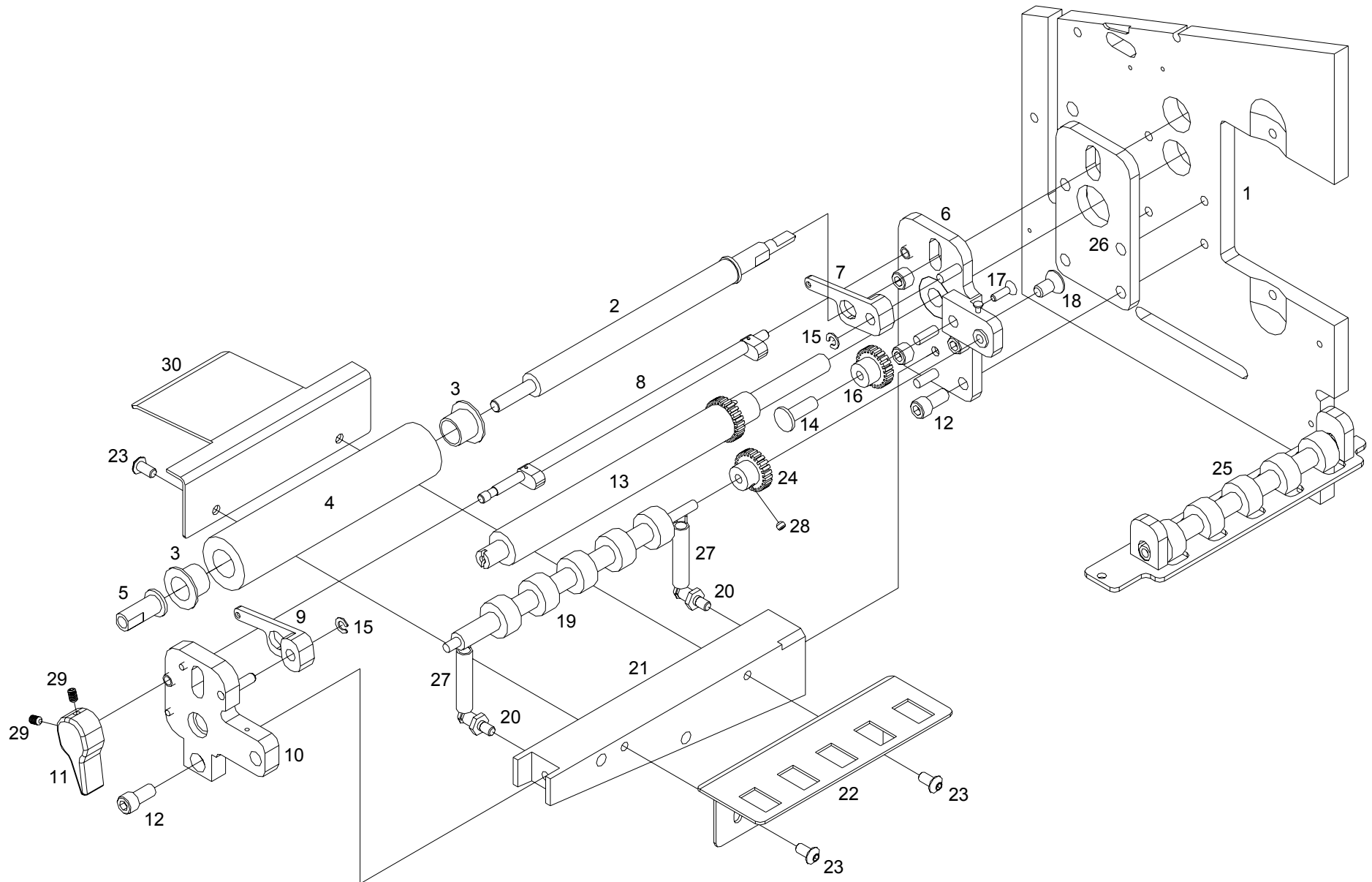
Item	Part #	Description	Qty	Item	Part #	Description	Qty
1	341206	Frame, Upright	1	16	354008A	Gear, Idler	1
2	514001	Shaft, Idler Roller	1	17	990023	6-32 x ½ F.H.S.	1
3	999037	Iglide, .50 x .50 FL Bearing	2	18	990416	½-20 x ½ F.H.S.	1
4	344054	Upper Drive Roller	1	19	354014	Driven Roller, Molded	1
5	514002	Sleeve, Idler Shaft	1	20	514003	Pin, Spring Anchor	2
6	514092P	Assembly, Support Drive Rear	1	21	355018	Support, Knife/Drive/Print	1
7	514010	Spring Lever, Rear	1	22	354004	Bridge Blade Lower	1
8	514094	Lift Cam Assembly	1	23	990090	10-32 x 3/8 B.H.S.S.	4
9	514009	Spring Lever, Front	1	24	354009A	Gear, Driven	1
10	514093P	Assembly, Support Drive Front	1	25	344097	Assembly, Pre Feed	1
11	514012	Knob, Feed Cam Lift	1	26	344061	Bracket, Rear Drive Spacer	1
12	990120	¼-20 x ½ Cap Screw	5	27	344002	Spring, Extension	2
13	344090	Assembly, Roller Drive	1	28	990057	8-32 x 1/8 Knurled Cup Point	1
14	354017	Shaft, Idler Gear	1	29	990058	8-32 x ¼ Knurled Cup Point	2
15	990325	Snap ring, 3/16 "E"-Ring	2	30	514011	Bridge Plate, Web	1

Knife Assembly Drawing
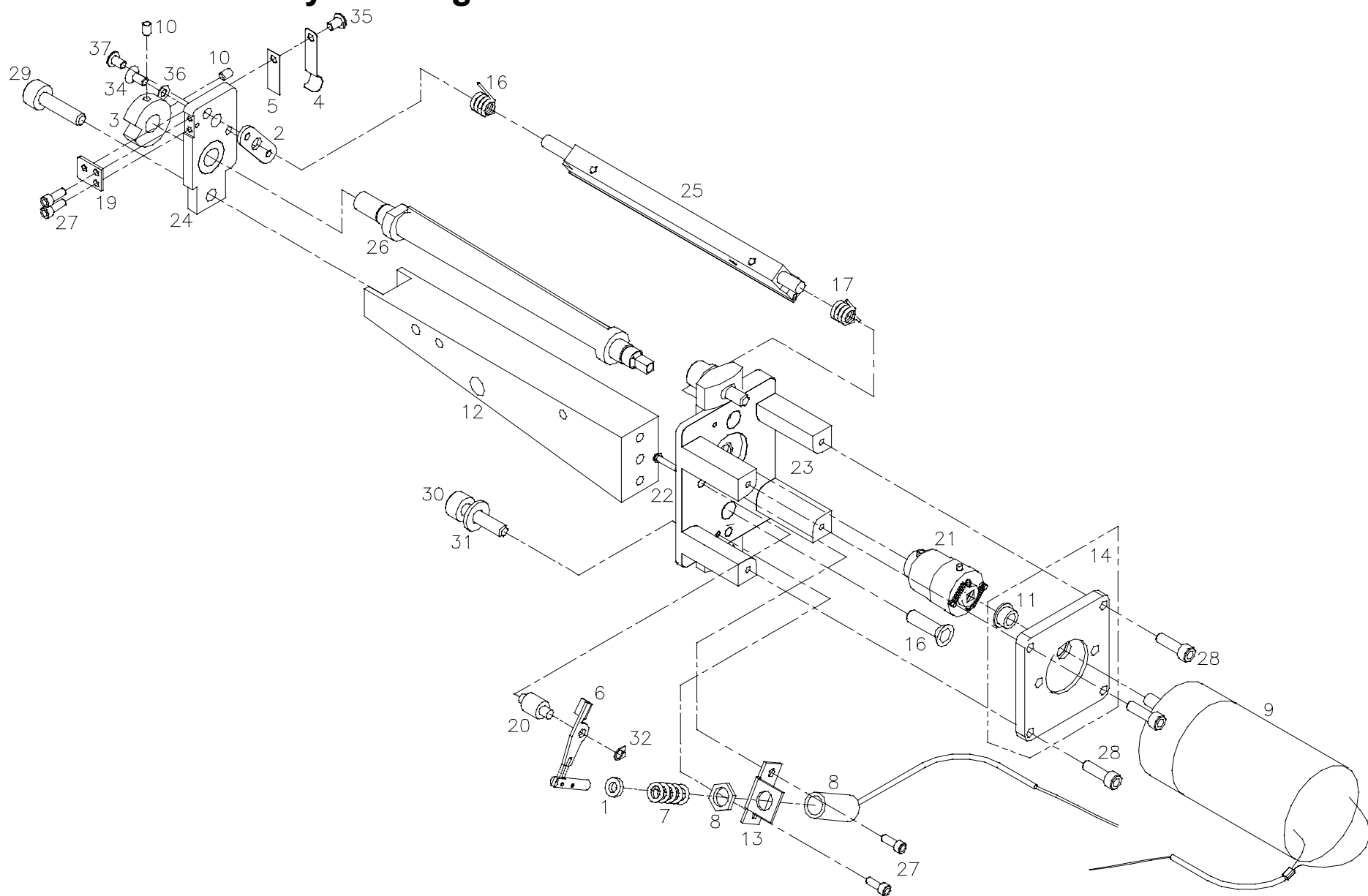
Knife Parts List

Item	Part #	Description	Qty
1	197003	#10 Washer	1
2	197308	Adjuster, Knife	1
3	197311	Cam, Knife Homing	1
4	197312	Spring, Cam	1
5	197313	Plate, Spring Cam	1
6	357020	Actuator, Knife	1
7	197317	Compression Spring	1
8	351123	Knife Solenoid Harness	1
9	517099	Knife Motor Assembly	1
10	991067	8-32 x 5/16 Knurled Pt. Set Screw	2
11	999097	Flg Bushing (Inc. w/ 357021K)	1
12	355018	Support, Knife/Drive/Print	1
13	357003	Mount, Solenoid	1
14	357021K	Adapter, Knife Motor	1
15	357005	Clutch Adapter w/ 8:32 x 1/4 SS	1
16	990122	¼-20 x ¾ Flat Head Screw	1
17	357007	Spring, Torsion Rear (Red Finish)	1
18	357011	Static Brush	1
19	357013	Mount, Cam Stop	1

Item	Part #	Description	Qty
20	357016	Standoff, Solenoid Arm	1
21	357019K	Clutch, Square Drive	1
22	990019	6-32 x ¼ Button Head Screw	1
23	357091	Bracket, Inner Knife Assembly	1
24	357092	Bracket, Outer Knife Assembly	1
25	357093	Knife, Stationary	1
26	357094	Knife Rotary	1
27	990016	6:32 x 3/8 Cap Screw	2
28	990082	10:32 x 5/8 Cap Screw	4
29	990120	1/4:20 x 1/2 Cap Screw	5
30	990123	1/4:20 x 1 Cap Screw	2
31	990102	#10 SAE Washer	2
32	990261	3/16 Snap Ring	1
33	990449	M3 x 6 Cap Screw	3
34	999055	8:32 x3/8 Flat Head	1
35	990066	8-32 x ¼ Button Head Screw	1
36	989978	#8 Star Washer	1
37	990065	8:32 x 3/8 Button Head	1

Stacker Assembly Drawing – Part 1
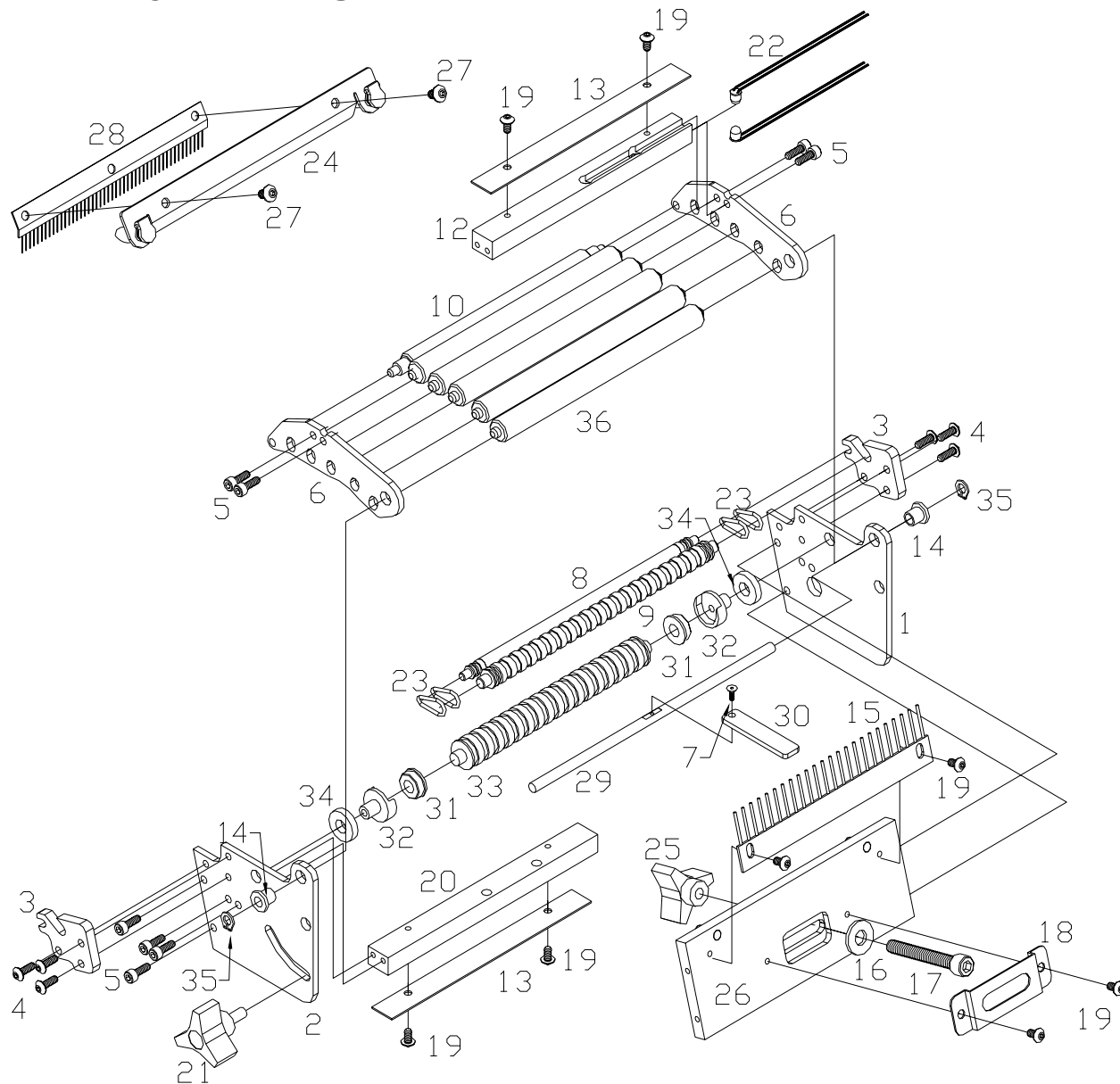
Stacker Parts List – Part 1

Item	Part #	Description	Qty
1	348001	Frame, Rear Stacker	1
2	348002	Frame, Near Stacker	1
3	348017	Support, Pick-Up Roller	2
4	990020	6-32 x 3/8 Button Head Screw	6
5	990016	6-32 x 3/8 Socket Head Cap Sc.	12
6	348107	Support, Roller	2
7	989994	2-56 x ¼" Socket F.H. Screw	2
8	378213	Roller, Driven (Pick-Up)	1
9	378208	Roller, Center Drive	1
10	378201	Roller, Pressure	1
11	378287	Pressure Roller Assembly	4
12	378204	Sensor Mount, Upper	1
13	378203	Sensor Lock	2
14	224053	Bushing, Lever Pivot	2
15	188014	Static Brush	1
16	990167	¼ Washer	1
17	990126	¼-20 x 1-3/4 Cap Screw	1
18	348006	Bracket, "T" Nut Retainer	1

Item	Part #	Description	Qty
19	990019	6-32 x ¼ Button Head Screw	8
20	378216	Sensor Mount, Lower	1
21	991029	Knob, 3 Prong, 10-32 Stud	1
22	371133	Jam Sensor Harness	1
23	991032	"O" Ring	4
24	378291	Oiler Mount/Knife Protector Assy	1
25	991060	Knob, ¼-20 Thread Thru	1
26	348094	Assembly, Base Plate	1
27	990066	8-32 x ¼ Button Head Screw	2
28	357011	Static Brush	1
29	348110	Shaft, Label Hold Down	1
30	348111	Bracket, Hold Down Finger	1
31	999012	¼ x ½" Flg. Ball Bearing	2
32	348016	Conveyor Bearing Mount	2
33	348021	Roller, Idler	1
34	348109	Spacer, Pivot Roller	2
35	990261	3/16" Snap Ring	2
36	378287	Pressure Roller Ass'y	4

*NS= Not shown

Stacker Assembly Drawing – Part 2
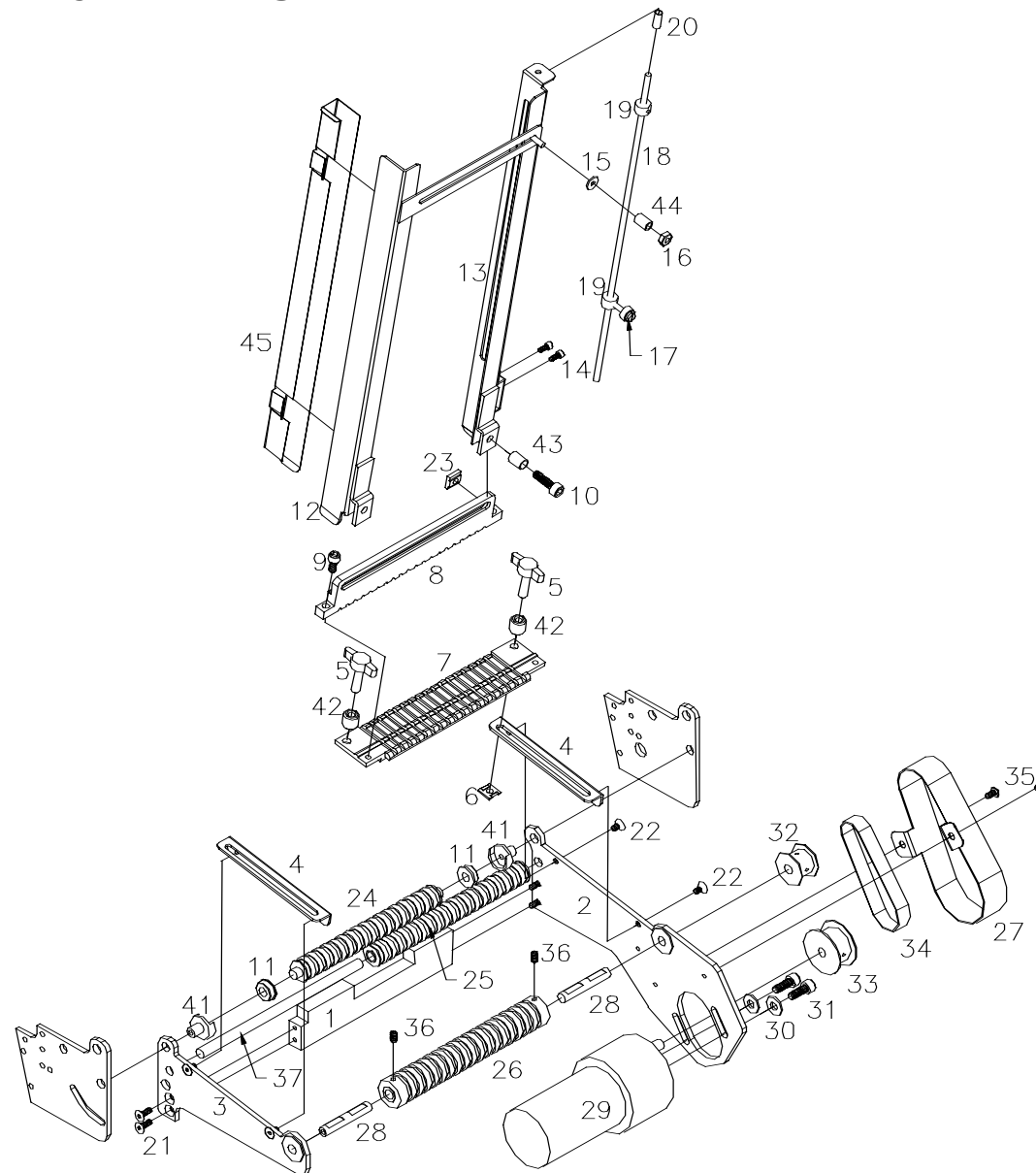
Stacker Parts List – Part 2

Item	Part #	Description	Qty
1	348106	Plate, Stacker Support	1
2	348192	Assembly, Rear Stacker Side	1
3	348191	Assembly, Front Stacker Side	1
4	348005	Bracket, Rail Side	2
5	990894	10-32 x ¾ "T" Thumb Screw	2
6	928008	"T" Nut #10 Formed	2
7	348014	Base, Stacker Rail	1
8	378209	Mount, Stacker Rail	1
9	990051	8-32 x 3/8 Cap Screw	2
10	991107	10-32 x 5/8 Button Head Screw	2
11	999012	¼ x ½ Flg Ball Bearing	2
12	378215	Rail, Stacker Upright	1
13	378035	Rail Stacker Upright Rear	1
14	990006	4-40 x ¼ Cap Screw	2
15	990466	Washer, 1/8 Nylon	1
16	990038	#6 Hex Nut	1
17	184002	Thumb Screw Lock, Web Guide	1
18	358013	Trip Rod	1
19	990369	1/8" Collar	2
20	358017	Spring, Trip Rod	1
21	990028	6-32 x 3/8 Socket Flat Head Scr.	4
22	990029	6-32 x ¼ Socket Flat head Scr.	4
23	188008	"T" Nut #10 Machined Square	2

Item	Part #	Description	Qty
24	348021	Roller, Idler	1
25	348093	Assembly, Drive Roller	2
26	348019	Roller, Drive	1
27	348008	Conveyor, Belt Guard	1
28	348015	Pin, Roller	2
29	351161	Stacker Motor Harness	1
30	990102	Washer, #10 SAE	2
31	990081	10-32 x ½ Cap Screw	2
32	348009	Drive, Pulley 10 Tooth	1
33	348024	Drive, Pulley 20 Tooth	1
34	358018	1/5P 40T Timing Belt	1
35	990019	6-32 x ¼ Button Head Screw	2
36	991067	8-32 x 5/16 Knurled Pt. Set Screw	2
37	348020	Shaft, Roller	1
38	351125	Stacker Harness (NS)*	1
39	351160	Full Stacker SW Harness (NS)*	1
40	348011	Drive, "O"-Ring #156 (NS)*	10
41	348016	Conveyor Bearing Mount	2
42	348022	Spacer, Stacker Knob	2
43	991081	Spring, Compression	2
44	991014	Spring, Compression	1
45	348108	Bracket, Stacker Rail	1

*NS= Not shown

Rewind Assembly Drawing
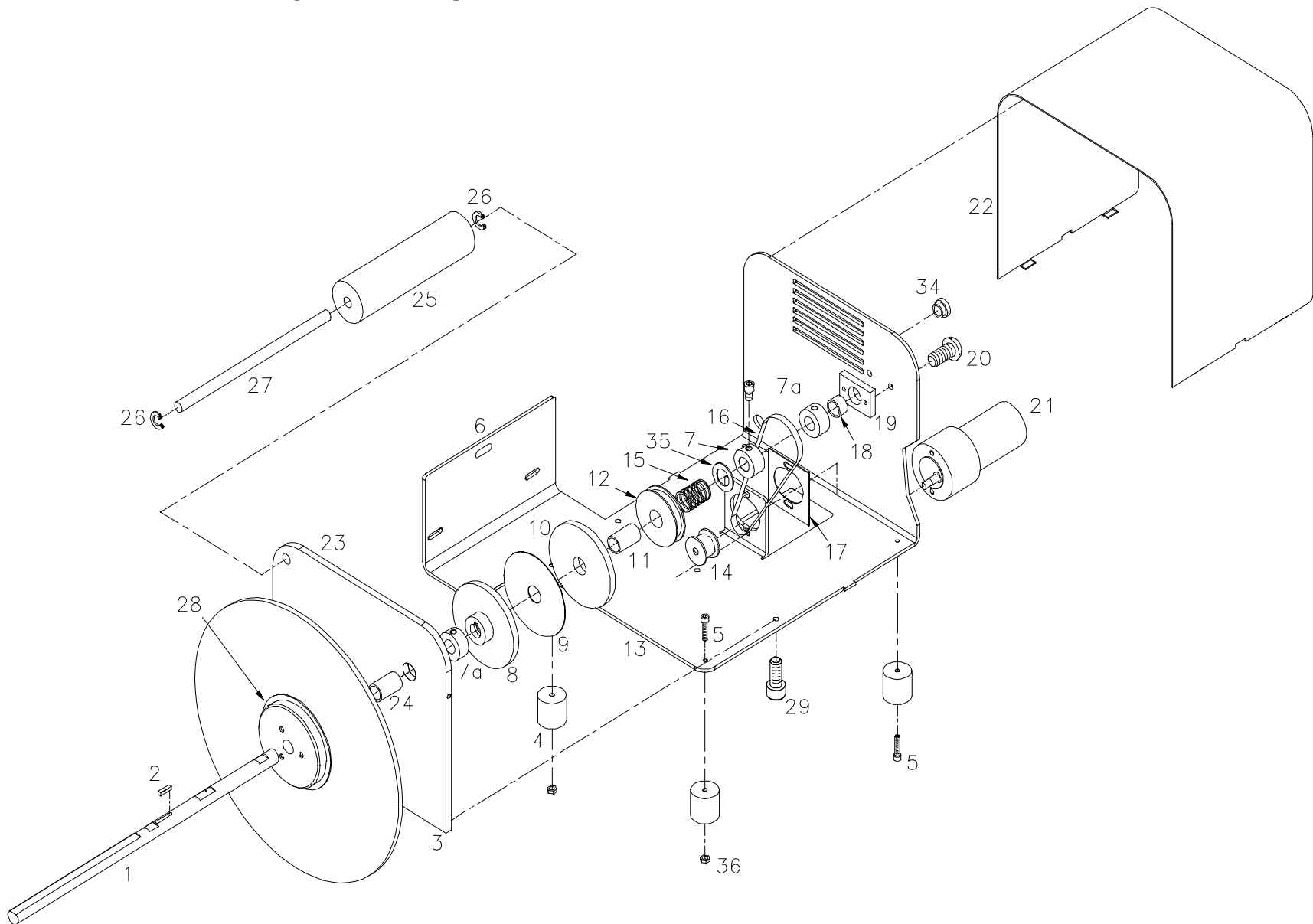
Rewind Parts List

Item	Part #	Description	Qty
1	112033	Shaft, 6x6 rewind	1
2	112035	Key, 1/8 x 1/8 x 3/8	1
3	923009	10" roll disc	1
4	111032	Rubber feet	4
5	990054	8:32 x 1 cap screw	4
6	111029	Base	1
7	990374	1/2" collar	3
8	112028	Driven disc	1
9	112032	Friction disc	1
10	112030	Drive disc	1
11	999118	1/2 x 5/8 x 1 1/4 bushing	1
12	112005	28t 1/5p timing belt pulley	1
13	990091	10:32 x 1/2 btn hd screw	2
14	197078	12t 1/5p timing belt pulley	1
15	990465	comp. spring	1
16	112031	Timing belt 67t 1/5p	1
17	112036	EAR motor insulation	1
18	999121	1/2 x 3/4 x 1/2 bushing	1

Item	Part #	Description	Qty
19	112037	support, shaft bearing	1
20	990090	10:32 x 3/8 btn hd screw	2
21	351161	Stacker motor harnessed	1
22	111201	Cover	1
23	111030	Upright	1
24	999147	1/2 x 5/8 x 3/4 bushing	1
25	111027	Decurler roller assy	1
26	990264	3/8" snap ring	2
27	112034	Decurler shaft	1
28	111025	Hub, 3" rewind insert	2
29	989974	8:32 x 3/8 cap screw	3
30	351183	6x6 rewind motor harness (NS)	1
31	923010	10" roll disc (NS)	1
32	990026	6:32 x 3/4 fh screw (NS)	6
33	923014	Roll unwind disc hub (NS)	2
34	251136	Bushing, Strain Relief (NS)	1

*NS= Not shown